Lectures
ON
CONTRACTIONS OF THE FINGERS AND TOES; THEIR VARIETIES, PATHOLOGY, AND TREATMENT.

Delivered in the Theatre of the Royal College of Surgeons,

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LECTURE I.

MR. PRESIDENT AND GENTLEMEN,—The section of surgical disease of which I have the honour to treat in the present course of lectures is one of unambitious scope, but it is, nevertheless, one that deserves the attention of every surgeon and pathologist because it comprises a group of ailments which are the source of much pain and crippling, and because it offers many problems of causation that are still unsolved. It is true that none of these affections threaten life, but in medicine, as in law, it is often rather the importance of the principle involved than the magnitude of the interests immediately at stake that invests the case with interest. There is a material advantage to be gained by studying the deformities of the hands together with those of the feet, for it will be found that nearly all the forms of contraction that appear in the one are represented in the other, and a comparison of the conditions under which the two sets of affections arise may throw light upon the pathogeny of both. At the same time if we glance at the structural and functional differences in the hand and foot, and at the fact that civilised life imposes artificial restraints upon the freedom of action of the latter, while it cultivates to a marvellous degree of perfection the variety and precision of movement in the former, we shall understand that although certain deformities of the fingers may have a strict pathological analogy with those of the toes, the prevalence, the effects produced, and the treatment required may differ essentially in the two sets of cases. It will be seen that our knowledge of some of the affections to be described is of very recent date, and that certain diseases, frequent in occurrence, obvious in character, and very inconvenient or painful in results, have only found a place in our text-books within the last few years. Even the most ancient in point of literary existence scarcely dates beyond the third decade of the present century; while the youngest, when regarded in the same aspect, is merely an infant of four winters; and yet both the one and the other may be nearly as old as mankind.

CONTRACTIONS OF THE FINGERS.

The grouping I propose to adopt is as follows:—1. Contractions due to pathological processes taking place in the cutaneous and fascial structures of the palm and palmar surface of the fingers. This includes the so-called "contraction of the palmar fascia," with which the name of the great surgeon, Dupuytren, is inseparably connected, as well as another affection of similar character, but different pathological origin. 2. Contractions due to developmental irregularities in the bony and ligamentous elements of the articulations. Under this heading come the deformity which may be termed "hammer finger" and the closely allied lateral distortions of the digits—affections which are chiefly of importance in their bearing upon analogous conditions of the toes. 3. Contractions arising from interrupted developmental evolution of the finger flexors, without paralytic or spastic complications. 4. Contractions due to unbalanced action of the flexor muscles after accidental solution of continuity of the extensor tendons. 5. Contractions arising from nutritive changes in the motor apparatus consequent upon long immobilisation of the part with pressure, or from inflammatory processes in the inter-muscular planes, or in the muscles themselves. 6 Contractions dependent upon inflammatory articular disease of traumatic or constitutional origin. 7. Contractions of neuropathic origin, paralytic or spastic. Under this denomination, as under the last, only those questions which concern the surgeon will be taken into consideration. 8. Congenital contractions not included under any of the preceding headings. 9. Trigger finger; a condition not yet susceptible of scientific classification.

Contractions involving the digital and palmar fasciæ.—The clinical features of the disease called Dupuytren's "contraction of the palmar fascia" were well known before the true seat of the morbid process was surmised; but the Greek and Arab writers, and their European followers down to the end of the last century, make no reference to it; and the first accessible descriptions are those of Sir Astley Cooper in his Treatise on Fractures and Dislocations published in 1822, and of Boyer in the eleventh and last volume of his Maladies Chirurgicales, issued in 1826. The latter is really a very correct account from the clinical aspect; and although the author could suggest no better pathological explanation than that implied by the name "crispatura tendinum," which he found already given to the disease by previous writers, in works that appear to be no longer in existence, he accepts it with commendable hesitation.[1] Sir Astley Cooper, on the other hand, gives a less detailed description, but recognises the non-tendinous origin of the disease. The classical essay, however, was that of Dupuytren in 1831, which, partly from its intrinsic merits and partly from the fame of the writer, attracted wide attention, and called forth within the next few years a number of eminently scientific observations upon the pathology of the complaint, mostly from countrymen of his own. More recently the affection has received close attention from many distinguished surgeons in France, Germany, America, and England.

Symptomatology.—Before entering into the symptomatology, I ought to premise that there are to be distinguished two forms of the so called contraction of the palmar fascia: one in which the condition occurs independently of any definite traumatism and tends to multiplicity of lesion, the other appearing as a result of an ordinary wound, and confined to the parts in direct relation to the injury. The first of these I propose to speak of as true Dupuytren's contraction, or the specific form; the second as false or traumatic contraction. The characteristics of the latter will be referred to later.

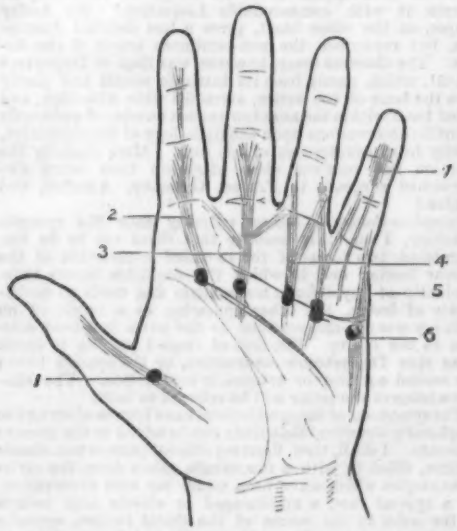
The symptoms of the specific form have been so often and so graphically described that little can be added to the current accounts. I shall, then, limit my clinical picture to a simple outline, filled in with a few details taken from the series of examples which have been under my own observation. In a typical case, a middle-aged or elderly man notices in the palm in the course of the distal furrow, opposite the ring or little finger, a small nodule, or perhaps only a puckering and exaggeration of the flexion line. By-and-bye a ridge appears running proximally from this point towards the wrist and in the distal direction along the central axis of the finger. The ridge is prominent, round, and very hard, especially between the flexion fold and the root of the digit, and the skin is usually drawn to it tightly at the seat of the initial sign. It passes on to the front of the first phalanx, nearly always preserving the central position, but spreading out and usually sending processes to the deep surface of the integument as it reaches the first joint of the finger, and as it contracts, draws down the metacarpal phalanx towards the palm. After a while the second phalanx may become bent in like manner, and by exception even the distal bone. The articular structures show no trace of disease, the tendons are normal, the finger retains all its strength within the progressively narrowing range of motion left to it by the disease, and the utility of the hand may for a long while be little impaired. Sooner or later other fingers may become involved, and the affection may appear in the opposite hand, to follow a like course. The process of contraction is slow in progress, perhaps extending over ten or twenty years; it is painless, and is uncomplicated by any signs of active inflammation. At length, after a more or less protracted period, it may terminate spontaneously in any of its stages, but the mischief wrought is permanent, and, unless the surgeon intervenes, the patient carries it to his grave.

This is the more ordinary course, but the signs show

[1] "Les doigts, et particulièrement les trois derniers, sont sujets à une flexion permanent involontaire; à laquelle on a donné le nom de 'contracture,' et que quelques auteurs ont appelée en latin "crispatura tendinum.'" This name is usually but wrongly attributed to Boyer himself. (Maladies Chirurgicales, vol. ii., p. 55, first edition, 1826.)

great variety in different cases. 1. The disease may remain limited to the palm, not giving rise to flexion of the finger; this is especially frequent in women. 2. Any or all of the fingers may be attacked, and the rigid bands may implicate also the thenar and hypothenar eminences. 3. Either or both inter-phalangeal joints may become flexed, while the metacarpo-phalangeal joint remains free. 4. The palmar cord may remain single and central, or it may send off a lateral branch on either or both sides in the inter-digital web, and so implicate two or three fingers. 5. A central band, after reaching the root of the finger, may bifurcate, sending a branch to either side of the digit; this is, in my experience, the least common variety. 6. The cord, instead of running along the central axis of the finger, may pass towards the inter-digital cleft and then divide, giving branches to two digits; a band of this kind would be in dangerous relation to the digital vessels and nerves in the event of operation by excision. (Fig. 1.)

FIG. 1.



DIAGRAM

Showing the various types of the abnormal bands in Dupuytren's contraction. The position of the initial lesions is indicated by the black spots. 1, Thenar band. 2, Axial band extending to distal joint. 3, Axial band giving off lateral branches to adjoining fingers. 4, Axial band bifurcating to send branches to sides of finger. 5, "Interosseous" band bifurcating to join two adjacent digits. 6, Hypothenar band. 7, Band more developed at distal than at proximal extremity, and leading to contraction of first or second interphalangeal joint, the metacarpo-phalangeal joint remaining free.

The statistics as to fingers affected in my series of cases correspond closely to those already published by Adams, Keen, and others. They are as follows:—Thumb, four times; index finger, three times; middle finger, twenty-two times; ring finger, thirty-nine times; little finger, twenty-eight times (these numbers include the purely palmar bands where they were placed over the metacarpo-phalangeal articulation, but had not yet led to contraction of the digit; traumatic cases are excluded). The most common association where more than one digit was affected was that of the ring and little fingers; when a single finger was attacked, it was most frequently the fourth. The flexion involved in almost equal proportions the metacarpo-phalangeal joint alone, and this together with the first inter-phalangeal joint. In four cases the first inter-phalangeal joint was contracted, while the metacarpo-phalangeal articulation was free, and in one case the distal joint alone was flexed, although the band extended from the palm. In only two cases were all the fingers implicated. The condition was bilateral in twenty-four cases out of thirty-nine, right-handed in ten, and left-handed in five. Thus the right hand was attacked thirty-four times, and the left twenty-nine times. Of the twenty-four bilateral cases, nine were worse in the right hand, six in the left; in the rest the severity differed little on the two sides. Nearly one-third were unsymmetrical as to the fingers attacked. In eight patients, six of whom were women, the band was purely palmar, and did not cause any contraction of the fingers.

Two interesting points to be especially noted in reviewing the series were—first, the tendency to multiplicity of the initial lesions; and, secondly, the close coincidence of these with the places at which the nails came into contact with the palm when the hand is clenched. In no case did the disease commence in the finger itself. These facts probably have a bearing upon etiology. In only one instance was there any association with a corresponding disease of the sole. The inconveniences resulting from the affection are less urgent than might have been expected, partly because the flexion power remains, partly because there is no pain, and partly because the contraction seldom attains an aggravated form until an age when æsthetic considerations are of less importance and the more active period of working life is drawing to a close. In some extreme cases, however, the nail of the contracted finger may press against the palm, and cause ulceration, and in one instance brought under my notice by a friend the deformity was nearly the cause of a fatal accident, the bent finger becoming hooked in the handle of a moving railway carriage in such a manner that it could not be disengaged. The patient saved himself by seizing a pillar, while the traction force tore asunder the diseased fibrous bands and set the straightened finger free. It is needless to say that the benefit of the impromptu operation was limited to the immediate service rendered.

The *frequency* of the complaint is difficult to estimate. With a view to forming some opinion as to its prevalence in the poorer classes I took advantage of the kindness of Mr. J. Lunn, medical officer, and Mr. A. Bernau, clinical assistant, of the Marylebone Infirmary, Mr. Percy Potter of the Kensington Infirmary, Dr. A. H. Robinson of the Mile-end Infirmary, and Dr. S. G. Littlejohn of the Central District Schools at Hanwell, to select cases from the large body of patients in the institutions under their control; and in the cases of Kensington and Mile-end I had also the privilege of access to the workhouses in connexion with the infirmaries. The total numbers of the persons thus open to investigation were 2600 adults, and 800 children under the age of fifteen. All of these were carefully examined, and every example of Dupuytren's contraction (as well as of the other conditions included in these lectures) was systematically recorded. Of the 2600 adults, of whom about five-sixths were over middle age, 33, or 1·27 per cent., were found to be suffering from various stages of the affection, while in the 800 children no trace of the disease was to be detected. This proportion is very much smaller than that discovered by Mr. Noble Smith, who was fortunate enough to secure no less than 70 cases in 700 persons. His facts and deductions have been fully discussed at the Royal Medical and Chirurgical Society and in the medical papers.

Sex.—The influence of sex is very noteworthy, but much less than was formerly conjectured. Cases of any degree of severity in the female are rare, but the slighter forms are fairly common. Of 39 non-traumatic cases, 25 were in men and 14 in women, but of the latter number in only 8 was there any contraction of the fingers. This proportion is larger on the side of the female sex than that given by Dr. Keen in the valuable series analysed by him in 1882 (20 females to 106 males); but it must be pointed out that most of the cases would have escaped notice altogether without a close examination of the palm.

Age.—Dupuytren's contraction is almost essentially a disease of middle or later life. It was estimated by Dr. Keen that about five-sixths of the cases began after the age of thirty, but his examples included some of the traumatic form, which may of course originate at any period of life. In my own series only one, a man of thirty-two, was below the age of forty when the disease first appeared, and in the number seen in hospital practice before I began to keep notes of the cases, I do not recollect one in which the symptoms began in youth or early adult life. My friend Surgeon A. H. De Lom has kindly obtained for me some statistics that bear very directly upon this point. He finds by reference to the Army Reports that in a force averaging 203,000 soldiers, between the ages of seventeen and thirty-five only three cases of contraction of the

fingers came under treatment in five years (1885–9), and it is not certain whether these were of the traumatic or of the specific variety. It is of course possible that some incipient cases escaped attention, but the magnitude of the figures gives a value to the record in spite of this source of fallacy. It is stated, however, that exceptions to the rule do occur, and that conditions bearing a resemblance to true Dupuytren's contraction have been seen in childhood, and some of these are even believed to be congenital; but it is probable that a close examination of such cases would prove them to be of a different pathological nature. There appears to be no limit to the period of onset in the other direction. In eighteen cases in my list the disease was unnoticed until after the age of sixty, and in six of these it did not appear until the eighth decade, and it is significant that the majority of these patients, a portion of whom were women, had given up laborious employment before the symptoms appeared.

Class and occupation.—It is very difficult to obtain any information of statistical value as to the proportionate distribution of the complaint in the "classes" and "masses," and there is great difference of opinion upon the question amongst our best authorities. It is at any rate certain that our workhouses contain a considerable number of examples, and that the disease is also very often found in men and women of the educated ranks. The same doubt exists with reference to the influence of occupation, but there is no doubt that the earlier observers greatly exaggerated the importance of this factor. It appears, indeed, that in various callings which involve much rough treatment of the palm the affection is even less common than in the rest of the community. Its infrequency amongst soldiers has been already remarked, and Mr. Johnson Smith informs me that it is very rare amongst sailors. In about 200 patients at the Seamen's Hospital, whom he was kind enough to examine in order to put the question to the test, only one example of the disease was found, and this was probably of traumatic origin. Shoemakers have been said to suffer frequently, and for mechanical reasons, but there seems to be no substantial foundation for the belief. I have only met with one of the craft so affected, and by a somewhat curious coincidence the disease was of older date, and more severe in the left hand than in the right. This man told me that he had never seen or heard of the complaint amongst his fellow workmen. Two of the worst cases in my own series were in clerks. With reference to the question of occupation, it may be remembered that the affection is bilateral in nearly two-thirds of the cases, and that the left hand is affected almost as frequently as the right—in my own cases in the proportion of six to seven. This and the other facts named would appear to negative the view that mere friction and pressure of the palm by tools or other objects habitually held within the hands can account for the disease. It is possible, on the contrary, that habitual rough usage of the hands, by leading to epidermic thickening, protects the deeper structures; and that the horny-handed toiler is proportionately less liable to the disease than his more fortunate and more tender-palmed fellow citizen. Nevertheless, when the condition has once started there is reason to believe that its progress is hastened by any external source of irritation, and it is this fact which accounts for the strong convictions of most of the sufferers as to the mechanical origin of their deformity.

Constitutional condition.—If a generalisation would be permissible solely upon the cases in my own list, I should be inclined to think that the patients were rather above than below the average in health. Twenty-six out of the thirty-nine had passed threescore and ten when they came under my notice, and with four exceptions all were in good physical condition, and one (a woman with fairly well-marked contraction in both hands) had reached the span of ninety-three years. In each case careful inquiries were made with reference to the inheritance or past or present existence of gout, rheumatism, and rheumatoid arthritis, and the result, confirmed as far as possible by direct examination of the patients, was altogether contrary to my preconceived notions on the subject. Of the whole number, only one had suffered from gout, one from rheumatic fever, three from rheumatoid arthritis (all in women, whose Dupuytren's disease was limited to slight palmar lesion), and six from mild subacute or chronic rheumatism. A possible gouty inheritance was traced in three cases. All were free from nervous disorders except two of the women who were subject to neuralgias of an ordinary kind, and one (aged seventy-three) with a double contraction of thirty years' standing, who was suffering from hemiplegia of three years' duration. No complaint as to the digestive functions was made in any case. The evidence brought forward by different observers with regard to constitutional tendency appears to be extremely conflicting. Thus Dr. Keen, whose contribution is one of the most carefully recorded that we possess, found no less than forty-two gouty patients out of forty-eight cases; and Mr. Adams expresses his opinion that the disease is a gouty thickening of the palmar fascia. Dr. Abbe of New York, on the other hand, has noticed a remarkable frequency of nervous symptoms in connexion with Dupuytren's contraction, and believes that the complaint is of neuropathic origin, while other surgeons have in like manner assigned to rheumatism, rheumatoid arthritis, alcoholism, and other conditions an important causative relation with the disease. There is of course no doubt that such common affections as gout and rheumatism, neuroses and alcoholism are present in certain cases—it would be strange were it not so; but it is noticeable that the surgeon who gives a prominent place in the causation to any one of these conditions always holds the claims of the rest in very low esteem; and it appears probable that the associated constitutional tendencies noticed in the different groups of cases depended rather upon the particular class or set from which the observer drew his patients than upon any essential connexion between the local and internal affections. My own experience of the disease has been based principally upon cases in hospitals, and hence the remarkable absence in my series of the neurotic or gouty predispositions that might have appeared in persons whose worldly circumstances favoured either of those conditions.

Habits.—In my inquiries as to habits, the usual difficulty arose of obtaining trustworthy replies. Three of the more severe cases pleaded guilty to long-standing intemperance, but the rest all regarded themselves as moderate drinkers—an elastic term. There was, however, nothing in their general condition to indicate that alcoholism had exercised any material influence in favouring the palmar lesion.

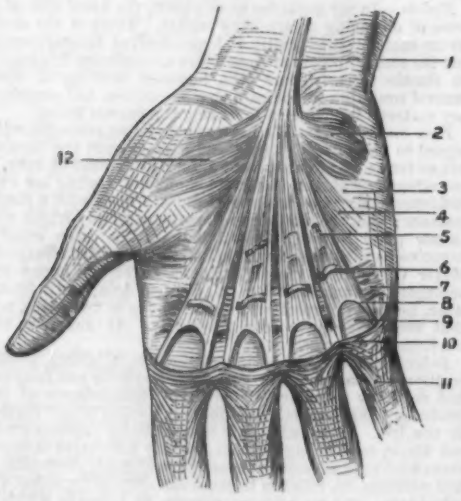
Race and climate.—We have at present no statistics with regard to the effects of race and climate upon the disease, but so far as we are at present informed it must be rare, if not altogether absent, in certain countries. During my own residence of six years in Japan I did not meet with a single instance; and the far larger experience of my friend and former pupil Surgeon-General Takaki has been equally negative as to this particular affection. My friend Surgeon-Major Owen tells me that in an extensive experience amongst the natives of Bengal, Central Asia, and Afghanistan, he does not recollect more than one or two cases, and that these may have been traumatic. At any rate, the condition is extremely rare.

Inheritance.—There is unquestionably a strong predisposition to the disease in certain individuals and families, and so many examples of hereditary transmission of the tendency have been related that it is useless to add further to the list. Upon what this susceptibility depends we do not know, for although it is necessarily associated in many cases with such widespread complaints as gout, rheumatism, and neuroses, its relation to these can only be regarded as a coincidence, and we have at present no terms in which to express the diatheses.

Morbid anatomy.—It has long been a subject of dispute whether the complaint is or is not a contraction of the palmar fascia. There is of course no doubt that the palmar fascia is always implicated to some extent, but its exact relation to the morbid tissue that constitutes the essence of Dupuytren's disease can only be decided by a consideration of the anatomy of the health structure. It is perhaps not easy to say what is meant by the expression "palmar fascia," since the text-books are by no means agreed upon the point. We have really to notice four palmar structures which may claim a share in the title. These are (1) the radiating fascia, spreading towards the fingers from the palmaris longus and annular ligament; (2) the aponeuroses, investing the muscles of the thumb and fingers; (3) a delicate connective tissue, blending with 1 and 2 and forming sheaths for the flexor tendons, the lumbricales, and the digital vessels and nerves; (4) the fascia of Gerdy, which runs transversely across the bases of the second, third, fourth, and fifth fingers and in the interdigital webs, and is continuous with the superficial fascia of the digits and dorsal surface of the hand. Lastly, in addition to these, we might regard the

ligamenta vaginalia and the transverse ligaments connecting the metacarpo-phalangeal articulations as specialisations of the family. We are, however, mainly concerned with the radiating fascia and fibres of Gerdy. The "radiating fascia" consists of a strong fibrous expansion extending subcutaneously from the anterior annular ligament and palmaris longus tendon, and consisting of an outer or thenar portion, expanding over the muscles of the thumb and blending with the muscular aponeurosis, an inner and hypothenar portion similarly related to the muscles of the little finger; and a central digital expansion which is derived almost entirely from the palmaris longus when this is present, but is well developed even when the muscle is wanting. The central portion spreads out in a fan-like manner as it approaches the fingers, giving off some strong fibres from its anterior surface through the palmar fat to the connective tissue of the superjacent corium, especially in the situation of the palmar folds, and attached by its deep surface to the delicate fascial investment surrounding the tendons, vessels, and nerves. Finally, a little beyond the middle of the palm it divides into four segments, one for each digit, each of which soon breaks up into two lateral bands that embrace the sides of the metacarpo-phalangeal joint and blend with its ligaments, with the periosteum of the first phalanx, and running on become similarly connected as the first inter-phalangeal joint and middle phalanx. Where the four digital bands diverge they are connected together by deep transverse fibres which pass from the inner to the outer border of the hand, blending in these situations with the muscular aponeurosis. (Fig. 2)

FIG. 2.

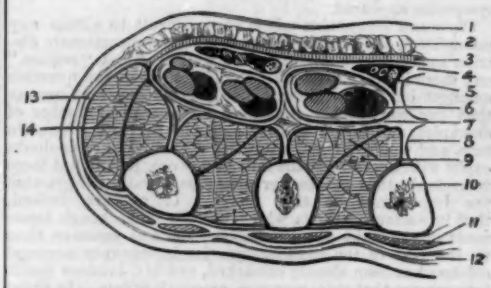


THE PALMAR FASCIÆ.

1, Palmaris longus tendon. 2, Palmaris brevis. 3, Muscular aponeurosis of hypothenar eminence. 4, Fibres from radiating fascia. 5, Innermost portion of central segment of radiating fascia. 6, Fibrous band passing to integumental fold. 7, Transverse fibres appended to radiating fascia. 8, Lateral digital branches of radiating fascia. 9, Portion of vaginal fascia exposed between 5 and 10. 10, Fibres of Gerdy. 11, Superficial digital fascia continuous with fibres of Gerdy. 12, Thenar portion of radiating fascia blending with muscular aponeurosis.

The transverse fibres of Gerdy are really the proximal portion of a superficial fascia which invests the whole of the four outer digits immediately under the skin, forms the subcutaneous web of the fingers, and is continuous posteriorly with the superficial fascia of the back of the hand. As seen in the palm, it consists of loose fibres intermingled with fat, running for the most part in a transverse direction from the second to the fifth metacarpo-phalangeal joint. Proximally it presents a somewhat sharply defined free border placed nearly opposite the joint fissure, and extends distally, as before stated, to the fingers and the inter-digital web, and is connected with the deeper structures by a few fibres, but is for the most part separated from them by loose, whitish fat. On the fingers the tissue constitutes a sheath investing the tendinous, bony, and ligamentous structures and the lateral bands derived from the radiating fascia. It takes the form of a distinctly membranous sheet dorsally and at the sides, but in front it appears as a coarse irregular network supporting the digital vessels and nerves, and containing a large quantity of fat in its meshes. It is connected strongly with the corium, especially at the palmar folds, and more loosely by fine fibres with the deeper structures. Between the proximal border of the fibres of Gerdy and the point of bifurcation of the digital bands of the radiating fascia is a space about half an inch in length, in which is seen a portion of the *vaginal fascia* which invests the tendons, vessels, and nerves in the palm. (Fig. 3.)

FIG. 3.



TRANSVERSE SECTION OF HAND THROUGH THE THIRD, FOURTH, AND FIFTH METACARPAL BONES.

1, Palmar integument. 2, Fat traversed by fibres from 3. 3, Radiating fascia. 4, Vaginal fascia, superficial portion. 5, Palmar vessels and nerve. 6, Flexor tendons and lumbricales. 7, Vaginal sheath blending with fascia of interossei. 8, Septal fibres from vaginal fascia to bone. 9, Interossei. 10, Middle metacarpal bone. 11, Extensor tendon and sheath. 12, Superficial fascia beneath dorsal integument. 13, Fascia of hypothenar eminence. 14, Muscles of little finger.

The connective-tissue fibres in this are for the most part transversely arranged. They are intimately connected superficially with the deep surface of the radiating fascia, where they lie beneath it, and deeply with the aponeuroses of the interossei, transverse metacarpal ligament, and glenoid plates, and form septa between the flexor tendons of the four fingers. Where they ensheath the tendons above the ligamenta vaginalia they are separated from them by a kind of lymph space.

If we examine a case of Dupuytren's contraction in the light of our anatomical knowledge, we shall be struck by the circumstance that the morbid structure which causes the permanent flexion of the fingers bears no resemblance in position or character to the normal fibrous tissues of the part, although it is apparently continuous in the proximal direction with the digital bands of the radiating fascia. The band is well developed beyond the point where the radiating fascia normally ceases, and maintains its longitudinal fibrillation while crossing the vaginal fascia and the transverse fibres of Gerdy. The varieties and modes of branching already described are only to a limited extent related to the anatomical arrangements—that is, where the morbid tissue spreads proximally over the radiating fascia, and sends lateral branches along the course of Gerdy's fibres; but it is certain that the tendon-like cords are of entirely new formation, and that they exist at the expense of the normal structures. The well-known preparation in St. Bartholomew's Hospital, which has been figured by Mr. Adams, is an example of this, as the band, instead of following the direction of the radiating fascia, runs towards the inter-digital cleft and there bifurcates, sending branches to the adjacent sides of two fingers. In the specimen now shown the band runs axially to the little finger and spreads out in front of the first phalanx as a fatless fan-like expansion, which differs altogether in character and arrangement from the normal subcutaneous tissue, and becomes closely connected with the skin, the structure of which, however, remains unchanged. The firmest point of integumental adhesion is opposite the distal flexion fold over the head of the fifth metacarpal bone. The first phalanx is flexed to about 90°, and over the meta-

carpo-phalangeal joint the contracted cord lies in a plane considerably anterior to the tendons, vessels, and nerves, which maintain their normal relation to the bones and muscles. There is no tendency on the part of the morbid growth to follow the deep connexions of the fascia in the palm. The radiating fascia, and perhaps even the tendon of the palmaris longus, are made tense and prominent by the shrinking of the new material, but the palmaris longus has no primary share in the production of the deformity, and in fact the disease may be present where the muscle is undeveloped. Repeated experience in operations has proved that the flexor tendons are not affected, and that even in long-standing cases the joints may be fully extended immediately after the division of the morbid fibrous bands. It may be accepted as a principle that the development of a tendon once completed, the tissue has little or no disposition to retrograde changes in the direction of its length. When the most prominent parts of the contracted cords are exposed for excision they bear much resemblance to tendon in contour and striation, but they are less bluish and lustrous in aspect. On dissecting them away from the radiating fascia the transverse fibres interlocking the digital segments of the latter may often be seen unchanged, and in one case in which the disease had attacked the sole the new fibrous tissue could easily be detached from the fascial fibres, which retained all their lustre. The histological appearances of the new growth are those of fibrous tissue. If the disease is spreading, the fibrous strands are intermingled with nuclear proliferation, which extends especially along the course of the vessels.

(To be continued.)

SKIN-GRAFTING AFTER EXCISION OF THE MAMMA.

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THE following cases may not be altogether without interest in connexion with the question of operation in certain cases of malignant disease of the mamma. Among the contra-indications to operation in cases of mammary cancer is infiltration of the whole gland, and extensive involvement of the skin over it in the disease, the chief reason being that the complete removal of the disease involves an enormous wound, which cannot be covered in at the time, and which, indeed, may never heal. In the first of these two patients many surgeons would, I think, have refused operation on this ground, and yet the whole wound was soundly healed within a month. These cases are also of interest with regard to the operation in less advanced cases, as showing that skin can be more freely removed than is usually deemed desirable. It is, I think, pretty generally admitted that the chance of local recurrence in mammary cancer is less where the gland has been completely destroyed by caustics, such as sulphuric acid, than where it has been removed by the knife by the ordinary method. This was brought out very clearly in an interesting paper published by Dr. Owen Pritchard in THE LANCET in October of last year. The explanation of this fact, as made out by recent workers chiefly by means of complete microscopic sections of the gland, and first brought to my notice by Mr. Harold J. Stiles of Edinburgh, is that the mammary gland is a much more extensive organ than is generally supposed, and more especially that gland structures are present in the bands of fascia which run from the gland to the skin, and which are left behind when the skin is dissected off the mamma as in the ordinary operation. The caustic, on the other hand, destroys the skin coextensive with the gland, and therefore also destroys these outlying portions of mammary tissue.

CASE 1.—E. A. H——, aged forty-nine, married, was admitted to King's College Hospital on Feb. 23rd, 1891. Nine months previously the patient first noticed that the whole of the left breast was hard, but as there was no pain she did not pay much attention to it. This hardness had steadily increased, and of late she had become much thinner and very weak. There was no family history of malignant disease. On admission, her condition was as follows: Patient very thin and weak; skin yellowish; marked anæmia. The whole of the left breast is very hard and considerably enlarged, the tumour extending from the third intercostal space above to the sixth intercostal space below and from the edge of the sternum in front to beyond the the anterior fold of the axilla; the vertical measurement is about six inches and the horizontal about six and a half. The mass is movable on the deeper structures, but the skin is adherent in several places and is not freely movable over any part of the tumour. The nipple is retracted. Indurated glands can be felt in the axilla, but they are not of large size. The patient does not suffer much pain. On Feb. 24th an incision was made through the skin all round the breast and about an inch and a half beyond the tumour and the mamma was removed, the fascia being carefully cleaned off the underlying muscles. When the skin had retracted a large circular wound was left measuring over eight inches in diameter. When the bleeding had been stopped the axilla was opened and the whole of the fat containing numerous affected glands was taken away. While I was clearing out the axilla my house surgeon, Mr. Hewlett, cut a number of long strips of skin, including about half the thickness (Thiersch's method) and laid them on the cut surface. The axillary wound was stitched up, no drain being used, and as the skin was loose the transverse diameter of the wound was diminished by an inch and a half. The grafts were then spread out and fresh ones cut, so as to cover the whole of the upper two-thirds of the wound. I did not in this case attempt to cover the whole because it was the first occasion on which I had employed skin-grafting to anything like this extent on a recent non-granulating wound, and I was not sure that it would be successful. I therefore thought it best not to keep the patient too long under chloroform, but to complete the skin-grafting at a later stage, when the exposed part had become covered with granulations. The wound was covered with protective dipped in 1–4000 sublimate solution, and dressed with the usual antiseptic dressings. The tumour was a rapidly growing scirrhus.

The dressing was changed on March 1st, and it was found that all the grafts had taken, and the axillary wound had healed by first intention. On March 16th the remainder of the wound which was granulating was grafted by Thiersch's method in the usual manner. These grafts also took, and on March 26th the patient was discharged from the hospital with the wound completely healed, and looking and feeling much better than when she was admitted. When seen again in May she was looking much less anæmic, and the yellow cachectic appearance had gone. The region of the breast and axilla remained quite sound and the movement of the arm was good, certainly quite as good as when the axilla is cleared out and the wound closed in by flaps of skin and fat in the usual manner.

CASE 2.—M. L——, aged thirty-five, married, was admitted to King's College Hospital on March 20th, 1891. The patient first noticed a swelling in the outer part of her left breast a year before admission, which steadily increased and of late very rapidly. Recently she had been getting weaker and losing flesh, and had suffered a good deal of pain of a stabbing character. Family and previous history unimportant. The patient was pale and thin, and complained of debility, loss of appetite, and severe stabbing pains in the left breast. The tumour involved the greater part of the gland, and the skin was not freely movable over it. The breast was movable on the deeper structures. Considerable enlargement of the axillary glands. On March 24th the mamma and the whole of the skin over it were removed, leaving a wound nearly as large as in the last case. As before, Mr. Hewlett cut grafts, while I cleared out the axilla, in which there were numerous affected glands. In this case I covered the whole surface with grafts, and at one part, as there had been a little redundant skin in the axilla, I cut it off, scraped away the fat from its deeper surface and planted the whole thickness of the skin. At the lower and outer part there was slight oozing going on when the grafts were put on. Dressing as before.

Dressing changed on March 30th. All the grafts (including the piece of entire skin) had taken with the exception of a small surface at the lower and outer part of the wound. This was again grafted on April 8th successfully. The patient was discharged on April 24th, with the wound quite healed.

It is of course much too early to speak of recurrence in these cases. My object in publishing them at present is to

call attention to the value of Thiersch's method of skin-grafting in closing recent wounds, and thus enabling us to operate in cases where otherwise we might hesitate, as well as to perform the operation more effectually in less severe cases. In a paper published in the *Practitioner* last year, I discussed the question of skin-grafting in granulating wounds with especial reference to the employment of the whole thickness of the skin. I shall therefore only refer here to the method employed in these cases. In the first place, as to the surface on which the grafts are laid, I took great care when excising the breast to remove also all the fascia covering the pectoralis and other muscles exposed in the wound, partly because by doing so lymphatic vessels lying on this fascia, which might be infected, are also removed, and partly in order to lay bare a very vascular surface on which to place the grafts. As to the grafts themselves, I employed Thiersch's method, taking about half the thickness of the skin instead of the plan which has its uses, especially in the leg, of taking the whole thickness, because the chance of adhesion is greater in Thiersch's plan, and portions of the grafts are not so likely to slough and delay the healing as when the whole thickness of the skin is employed. The skin having been well purified, long strips about an inch in breadth are cut with a broad razor, preferably from the thigh, and are spread out on the raw surface after the bleeding has been completely arrested. The strips must lie closely side by side—in fact, they should rather overlap each other and the edge of the wound. The extent of the wound to be covered at the time of the operation will depend on the condition of the patient and the circumstances of the case. In any case, I think it will always be best to cover the whole of the pectoralis at once. If it is not thought advisable to cover the whole wound at the time of the operation, any portion left can be readily grafted after the wound is granulating. As to the dressing, strict asepsis is of course necessary, and it is well to apply a piece of protective dipped in a weak antiseptic solution over the surface, and to leave the dressings unchanged as long as possible.

Welbeck-street, W.

THE PRACTICAL ELECTRO-THERAPEUTICS OF GRAVES' DISEASE.

BY H. W. D. CARDEW, M.R.C.S.

THOUGH Graves' disease is a well-recognised if somewhat uncommon affection, its therapeutics are indefinite, the success of different therapeutical agents varying in a most marked manner. In the oration to the Medical Society of London, delivered in May, 1890, by Dr. A. E. Sansom, on the subject of rapid heart (including Graves' disease), occurs the following pregnant statement:[1]—"Though in the less severe cases medicinal treatment has proved to be of great value, it has seemed to me that in the more severe ones drugs have been almost useless." Such an opinion pronounced by so careful and so competent a judge must carry great weight and meet with the approval of those who have an extensive experience of this disease. Dr. Sansom was not, however, content with merely a bald criticism, as he followed up his statement by alluding to the good results obtained with "the systematic use of the continuous galvanic current in the region of the great nerves of the neck," saying, in conclusion, "I believe that a *primâ-facie* case has been fully made out for such a method of treatment of rapid heart." When the oration was delivered I had been working at this subject for some time, and having enjoyed the privilege of being associated with Dr. Sansom in carrying out the electrical treatment for some of his cases, and seeing the results obtained, I could fully endorse the opinion he expressed as to the efficacy of such treatment. This has been confirmed since then by further experience. Regarding Graves' disease from its therapeutical aspect, I divide it into four classes:—1. Cases that undergo spontaneous recovery, including such cases amongst women as recover during subsequent pregnancy. 2. Cases that obtain relief or cure from an appropriate drug treatment. 3. Cases that obtain relief or cure from an appropriate electrical treatment. 4. Cases which derive no benefit from any treatment. I believe that one would be justified in stating dogmatically that cases deriving any benefit from an appropriate drug treatment would derive an equal, if not greater, benefit from an appropriate electrical treatment. Exceptions to this would be but few and far between. The converse is not, however, true; as the majority of cases recorded for the purpose of illustrating the benefit of electrical treatment are those in which it was used as a last resource, drugs having proved to be useless. Text-books on electro-therapeutics and the general medical literature contain a large number of such recorded cases. Statistics cannot well be invoked in favour of the electrical method of treatment, as it has been customary to commence the treatment of such cases with appropriate drugs, using the other method only as a last resource. Hence, for statistical purposes the drug method would have the benefit of some of the cases alluded to in Class 1; whereas the electrical method would for statistical purposes labour under the disadvantage of having classified under it a number of cases which should have properly been placed in Class 4. Anyone at present desirous of using electricity as the therapeutical agent for this disease would experience great difficulty in attempting to ascertain the best method of using it. The ordinary text-books of medicine either ignore this treatment or contain simply a vague allusion to it. Books on electro-therapeutics and large works of reference on medicine go more fully into it; but in these and the general medical literature of the last twenty years one finds the previous vagueness exchanged for the most profound confusion, almost amounting to chaos, owing to the enormous number of methods advocated. This confusion is owing to the diverse opinions held as to the greater efficacy of the two forms, galvanism and faradaism, of weak and strong currents (no standard of current strength being as a rule used), also as to the duration and frequency of the applications, and the suitable position for the electrodes. Some three years ago this was what I found, and thinking it might be of interest to ascertain the most efficacious method of those described, I commenced a series of experiments. I very soon learnt that for any electrical treatment to meet with general approval, it must be sufficiently simple to permit of self-application by the patient. This was owing to the difficulty I met with in persuading patients to come to me daily, or even on every other day, for a treatment which had of necessity to be continued over a prolonged period, though in their case it was not attended with any expense to themselves. With this fact, and no bias as to any particular method, I commenced my inquiries on the following four points, at first judging as to the effects by a digital examination of the pulse immediately before and after the treatment, later using, at Dr. Sansom's suggestion, the sphygmograph, so as to obtain graphic evidence as to the immediate effect:—1. Was galvanism or faradaism the best to use as regards convenience, comfort, and efficacy? 2. What strength of current should be used? 3. What should be the duration and frequency of the applications? 4. On what parts of the body should the electrodes be placed? It is not necessary for me to describe the details of the various methods tried in making this investigation. Suffice it to say that some were rejected owing to the results obtained, others as being too complicated for self-application by the patients.

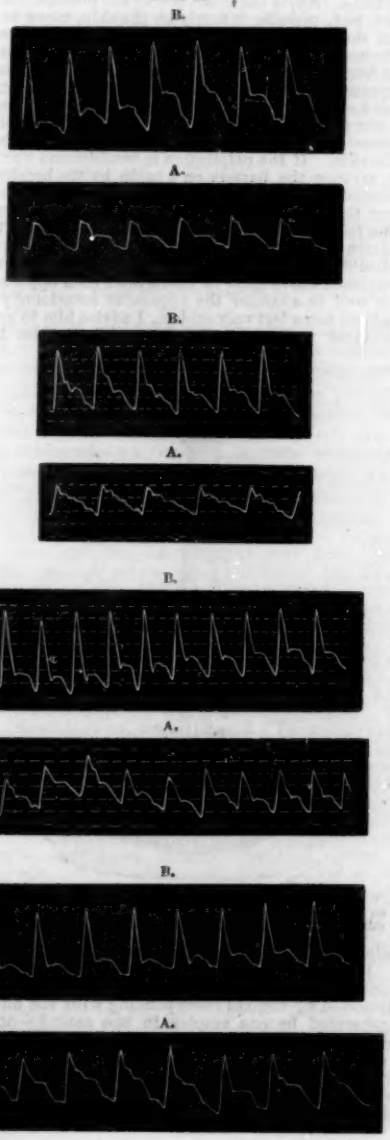
I had the advantage of Dr. Sansom's advice during the latter part of the investigations; and much time was saved me by his generously putting at my disposal a large amount of practical evidence as to the electro-therapeutics of Graves' disease, collected by himself and extending over many years. In taking this opportunity of thanking him, I desire to acknowledge how largely the results subsequently described are due to his practical experience and valuable advice. To the above questions I would answer as follows, after carefully reviewing the results of the investigation: 1. Galvanism is superior to faradaism. 2. Very weak current strength (two to three milliampères) is sufficient. 3. Each application should last six minutes. Frequent applications (three times a day) should be made. 4. The anode should be placed on the nape of the neck, the centre of its lower border corresponding to the seventh cervical spinous process, and be held firmly in that position during the application. The kathode should be moved up and down the side of the neck from the mastoid process along the course of the great nerves. These conclusions were arrived at for the following reasons.

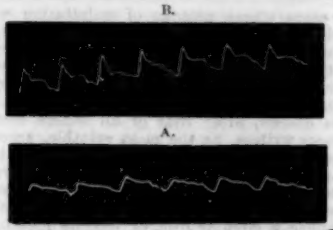
With faradaism I found that weak currents produced no effect; with strong, the cardio-vascular excitement was markedly increased and all neurotic symptoms exaggerated,

[1] THE LANCET, vol. i. 1890, p. 1006.

not only by the fright and terror attendant on such an application, but apparently by the action of the current, as this happened in patients who entertained no dread of the application. With moderate strength of current a result similar to that obtained by very weak galvanism was produced in one or two cases, but in no way better or more marked. I have to use such vague terms as "weak, "moderate," and "strong," as no definite standard of measurement can be applied to the faradaic current. This alone is a serious objection to the self-applicability which I regard as necessary. Primary and secondary coils were used and various rates of interruptions tried, but always with the same effect. There is no convenience as regards apparatus over galvanism. Seeing, therefore, that the advantages were all in favour of galvanism, I decided to use this form only. With such current strength as mentioned the effect is reduction of the frequency and force of the heart beat, prolongation of the diastole being most marked, and apparently an increase of the mean arterial tension. (Fig. 1.) The latter point I

FIG. 1.

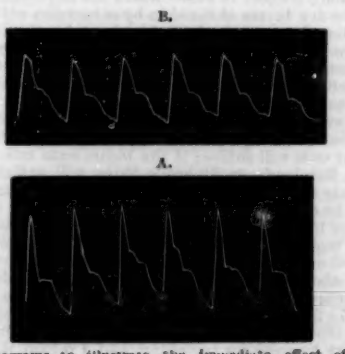




The above sphygmograms, taken from five patients suffering from Graves' disease, illustrate the immediate effect of this treatment on the rate and force of heart beat &c., those marked B being taken immediately before an application, and those marked A immediately after.

mention with extreme diffidence, knowing the various opinions held as to the syhygmographic evidence of so-called "increased arterial tension." This change in the rate &c. does not last for very long at first, the rate commencing to increase about half an hour or so after the application. The diminution of the violence lasts longer. As the case progresses and improves, the changes both in rate and violence last longer, until at length they become permanent. With strongish currents the result obtained varies with the susceptibility of the patient. As a rule, precisely the opposite occurs. (Fig. 2.) "Strongish" is a very vague

FIG. 2.



Sphygmograms to illustrate the immediate effect of a "strongish" current (in this case 10 milliampères): B immediately before an application; A immediately after.

term, but by it I understand a current strength, varying with the impressionability of the patient, which produces results opposite to those obtained when the current strength is only from 2 to 3 milliampères. With some patients 5 milliampères will be found "strongish," with others a current of any strength between this and 15 milliampères. Many good results are recorded as obtained with strong currents, and one must therefore conclude that the action is not the same as that found where weak currents were used. Experimental physiology shows this to be the case in many instances. Strong currents would not be suitable for self-application by patients, as they frighten the patient (and therefore would not in all probability be used); and it would not be safe to permit a patient, usually ignorant of electricity, to self-use a battery having an electro-motive force of forty volts and upwards, especially when the electrodes have to be placed about the head or neck. Each application should last six minutes. Longer than this is unnecessary; further, in some cases a prolonged application exaggerates the cardio-vascular excitement.

Until I had finally adopted a method in every way self-applicable by patients, I had to be contented with one application a day. Finding, however, that the reduction of heart beat, as regards force and frequency, lasted but a short time after each application (the time being longer as the patient improved), Dr. Sansom suggested, when the method adopted was shown to be self-applicable, that three applications daily should be tried. This was done with the very happiest results, and for the last twelve months I have ordered it to be done three times daily, or even more

often, in cases where attacks of palpitation were frequent during the day or night. In such cases I suggest, in addition to the three regular applications, an extra one whenever the palpitation is troublesome. It is particularly useful in relieving this in most cases, and has failed in only two as regards my own experience. The site for the electrodes was chosen, after trial of all others enumerated by the various writers, as the most suitable, according to the results obtained. It is also most convenient for the self-application. It being necessary to use electrodes of a definite size, I employed as the anode a circular disc of flexible metal three inches and a half in diameter, and as the kathode a circular disc of flexible metal an inch and a half in diameter. They were covered with wash-leather. There are certain practical points I might mention here. The number of cells necessary to produce the requisite current strength will vary with the electro-motive force of the variety of cell used, with the resistance (working) of the portion of the body included between the electrodes, and with the liquid used to moisten the electrode coverings. The electro-motive force necessary is usually about six volts, the working resistance of the included portion of the body being with this method about 2000 to 3000 ohms. By working resistance I mean the diminished resistance present, when the current has been flowing a short time, varying from about half a minute to two minutes, according to the condition of the patient's skin: the lowering of the initial resistance being quickest in those where the skin, or rather its dry superficial layers, has been converted into a fair conductor by saturation with sensible perspiration; longest in those where the improved conduction of the dry layers of the skin by saturation with a conducting liquid has to be brought about by the liquid in which the electrode coverings have been moistened, and subsequent superficial vascular changes: the first taking place chiefly under the anode, the second chiefly under the kathode as a result of electro-cataphoresis.

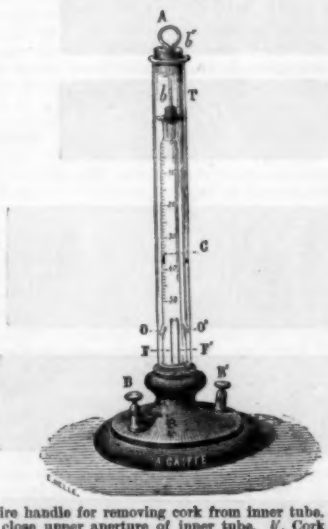
Of the ordinary cells used for medical purposes, not one has any general advantage over the other. If the Leclanché is used, four cells will suffice; if the bichromate cell, such as Grenet's, Reiniger's, or Stohrer's, three will suffice; if the persulphate of mercury (without addition of sulphuric acid), four will be enough. I prefer the Schall chloride of silver cell, either in its liquid or "dry" form, the latter being the better as regards portability. These cells are constant, reliable, and not expensive. The liquid has an electro-motive force of about 1·6 volt, the dry of about 1 volt. Four of the former, or six of the latter, can be put in a small box (6 × 5 × 2 inches), connected up to two terminal screws, marked respectively + and −. A dry battery can be packed as ordinary luggage for travelling, and I regard it as eminently portable and suitable for patients who travel much. For others the liquid one is sufficiently portable, and has the advantage of being slightly smaller. No collecting dial or rheostat is necessary. The electrodes may be of any shape, but their superficial area should be equal to that described, since the current strength, where the electro-motive force used is about 6 volts, varies with their size. For a similar reason hot water should as a rule be used for moistening the electrode covers. Another objection to salt or vinegar being added to the hot water is that, with frequent applications extending over a prolonged period, it will be found that they cause the skin to chafe and chap. It is most important for the patients' comfort to avoid this by instructing them to carefully dry the skin after each application, and, when possible, to apply some simple starch powder. I also advise them to use the right and left side of the neck on alternate applications for the same reason. The batteries are subject to the ordinary accidents from rough handling, but the commonest cause of trouble with them is owing to carelessness on the part of the patients, who leave the electrodes, or bare ends of the wires, in direct contact, or the electrodes in the vessel of hot water, thus, when connected to the battery, completing a circuit, and exhausting the chemical energy of the cells. Hence it is well to warn them on this point.

I find it advisable when seeing patients for the first time to proceed to the treatment at once. The mere name electricity conjures up in their minds great dread, which no assurance on your part as to the absence of pain can quell. A practical demonstration will, however, show them that the discomfort attendant on the application merely amounts to a slight sense of tingling and heat beneath the electrodes, with sometimes a metallic taste in the mouth. At the same time one can note the number of cells necessary for the current strength as described, and thus, after having ascertained the electro-motive force of such number of cells, estimate the (working) resistance of the included portion of the patient's body so as to be able to find out what number of cells is necessary. (Those who do not possess the necessary apparatus may take it that the working resistance is, as a rule, from about 2000 to 3000 ohms, and that therefore the necessary electro-motive force is about 6 volts.) I then show and explain the method of using a patient's battery, such as the one described, and give the patient written directions, to prevent subsequent errors on his part.

Directions for using the battery.—Thoroughly moisten the electrodes in hot water. Having removed them from the vessel containing hot water, connect the large electrode by means of a conducting wire to the battery terminal screw marked +, and the small electrode by means of the other conducting wire to the battery terminal screw marked −. Apply the large electrode to the nape of the neck, holding it firmly pressed on the skin in that position during the application. Apply the small one to the prominence behind the ear, and, pressing it firmly on the skin, move it slowly up and down the side of the neck along a line from this prominence to the junction of the collar-bone with the breast-bone. Each application should last six minutes, and be repeated three times a day—on getting up, about midday, and on going to bed. It may be used more frequently when the palpitation is troublesome. After each application disconnect the electrodes from the battery, and carefully dry the skin. If the palpitation is troublesome during the night, arrange the battery on a table by the bedside, with the electrodes attached ready for use, care being taken to prevent the electrodes coming in contact. Cold water, to which a few drops of vinegar have been added, may be used to moisten the electrodes at night. A small dish containing this should be placed on the table. The same precautions as mentioned above must be taken after each application.

It is well to examine the apparatus occasionally. If a patient can come but very seldom, I advise him to purchase a graduated voltmeter (Fig. 3), which enables him to examine the working condition of the battery for himself. It consists of two glass tubes of different diameters; the narrower one is inside the other and graduated in Coulombs—i.e., degrees corresponding with the amount of gas generated by one ampère in one second,—and communicates with the other by means of two apertures. The one at the top can be closed with a stopper. The lower part of the narrower tube contains two platinum wires, between which the current passes as soon as the tubes are filled with water. The gas developed in consequence of the

FIG. 3.



A, Wire handle for removing cork from inner tube. b, Cork to close upper aperture of inner tube. b', Cork to close outer tube. B, B', Terminals for connexion with battery.

decomposition soon rises in the inner tube, and its quantity may be read from the scale. The stopper of the inner tube being removed for a moment, the tube refills itself with water, and can be used for a second trial at once. A battery having an electro-motive force of about six volts should, when connected with this voltmeter, cause mixed gas to the extent of about six of the small divisions to collect in the upper portion of the inner tube when the circuit has been closed for two minutes. The method is rough and ready, but non-technical people make sad mistakes with a proper voltmeter, and at any rate one can obtain sufficiently accurate information as to the working condition of the battery by the voltmeter. I am having some constructed specially for this purpose under my supervision, in which a larger quantity of gas is formed, by altering certain structural and other conditions. With such a method and such simple apparatus, I think it will be found that electricity may claim for itself a position amongst the therapeutical agents regularly employed in Graves' disease. It is self-applicable, and the very slight extra trouble entailed is more than compensated for by the results obtained and trifling expense of the apparatus as compared with that of drugs, when treatment has to be extended over a lengthened period. (The patient's battery as described is supplied complete with electrodes and conducting wires for £1 with liquid cells, £1 1s. with dry cells. The chemical energy of these cells is sufficient for over a year, when only 3 milliampères are used for eighteen minutes daily.)

(To be concluded.)

AN UNUSUAL CASE OF NASAL POLYPUS.

By A. MARMADUKE SHEILD, M.B., F.R.C.S.,
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THE subject of this condensed report was the wife of a publican, a patient of Dr. South of Peckham, with whom I saw her on May 5th. She was advanced in life, and had enjoyed good health until about five months previously, when she noticed obstruction of the left nostril, which gradually increased. Aching pain in the left eye and lacrymal obstruction had supervened. On examination, the left nasal passage was filled by a large polypus, having the usual gelatinous consistence and appearance of the common myxomatous nasal polyp. The tumour was mobile and pedunculated. There was no expansion of the nose, and the naso-pharynx was free. While examining the connexions and mobility of the tumour with a probe it bled freely. This symptom, rare in simple gelatinous polypus, led to the suspicion that the case might prove to be malignant. The parts being cocainised, the tumour was removed with the cold wire snare. The resulting hæmorrhage was pulsating in character, and very profuse. Ultimately the nose was plugged with lint and tannin, and no bad effects followed.—May 19th: Dr. South assisting, some more growth was removed by the snare. This was soft, granulomatous, and malignant. The nasal passage was "clear" after this operation, but the bleeding was again profuse.—June 2nd: There is extensive return of the growth, but it seems mobile, and believing it originated in the turbinate bone I advised opening the nose laterally, free removal of the turbinate bone, and the application of Paquelin's cautery.—16th (operation): Dr. F. Hewitt administered anæsthetics. Assisted by Mr. Waterhouse, I opened the nose laterally. On introducing the finger, it was at once obvious that very serious disease was present. Firm lobules of growth could be felt, which obviously had their origin from the antrum. It was therefore decided to remove the entire jaw, and this was at once done in the ordinary manner. The bone was friable, and "broke down" under the lion forceps. The whole antrum was filled by a malignant growth, which extended above to the region of the cribriform plate, and behind to the pterygoid region. Yet the tumour was fairly circumscribed, and at the conclusion of the operation it seemed completely removed. Although the operation was executed as rapidly as possible, the bleeding was exceedingly profuse, and at its close the patient was pulseless and appeared moribund. Her condition was for ten minutes precarious in the extreme. This was met by the subcutaneous injection of ether, hot cloths to the head, and the administration of an enema of brandy-and-water. Fishing gut sutures were employed to unite the parts. The patient made a speedy and good recovery, the incision rapidly united, and she sat up on the seventh day.

Remarks.—The clinical signs which denote malignancy in a nasal polypus are a tendency to bleed freely, rapid growth, and advanced age of the patient. The present case illustrates this. It is principally interesting, however, as showing how exceedingly insidious and deceptive may be the origin and progress of antral tumour. None of the ordinary signs of antral distension were present, yet the whole cavity was filled by a growth which had obviously gained ingress to the nose by the orifice of the antrum. In the nose the tumour assumed a polypoid shape, growing freely in space, rather than expanding its bony surroundings. The hæmorrhage experienced was very serious. Without skilled assistance and prompt resuscitating measures, I doubt if the patient would have survived. This suggests the advisability of placing a temporary ligature on the carotid in cases of vascular tumour of the jaws, especially when the patient is exhausted by previous bleedings. In conclusion, the case affords a striking lesson of the caution with which we should regard cases of polypus of the nose in adults, which are of rapid growth. They are likely to be malignant, and have far deeper connexions and attachments than it is possible to ascertain by inspection. Partial operations by the snare or forceps are useless, and the free removal of the affected bone as early as possible affords the only chance of lengthy immunity from recurrence.

Stratford-place, W.

EXTENSIVE HYDATID DISEASE OF THE ABDOMEN; RECOVERY.

By HENRY HANDFORD, M.D., M.R.C.P.,
PHYSICIAN TO THE GENERAL HOSPITAL, NOTTINGHAM.

THE history of cases of hydatid disease of the abdomen so widespread as in the present instance, however treated, is usually one of gradually failing health, exhaustion, and death. A successful result is therefore worthy of record. It is also of interest to contrast in the same patient the treatment by free incision with that by puncture. In addition to the cysts removed by laparotomy, and those discharged through the wound that remained, four cysts in various parts of the abdomen were treated by aspiration and none of them refilled, and the liver was aspirated eight times in two years and a half. It is now three years since the last aspiration. Hydatid disease is not very uncommon in this neighbourhood, and during the last ten years I have seen in my own practice and that of my colleagues a very considerable number of cases affecting the liver, peritoneum, kidney, retro-peritoneal tissue, abdominal parietes, and even a metacarpal bone; and there is a specimen in our museum of a hydatid removed from the breast. On the whole I am strongly in favour, at any rate in the first instance, of aspiration rather than free incision in most cases. Very many are cured by a single tapping, notwithstanding the retention of the cyst wall. I have seen no advantage in taking only a small quantity of fluid, but prefer to withdraw as much as will readily flow.

L. B——, aged twenty-one, a lace-dresser, was admitted on July 21st, 1885, complaining of pain in the abdomen, headache, and loss of appetite. She used to be very stout, but has been losing flesh for the past six months, and now is rather thin. She first noticed a lump in the abdomen, just below the umbilicus, a year ago. For the past ten days the epigastric region has become distended and painful, and she has suffered from headache and loss of appetite. On admission the temperature was 102° F., the pyrexia being probably due to an attack of localised peritonitis, which soon subsided. The abdomen was tense and greatly distended. There was no marked want of symmetry, though the right flank was rather more prominent than the left. The distribution of the dulness was very irregular. On palpation, rounded masses, varying in size from a walnut to a large orange, could be felt; but on account of the great tension I could not satisfy myself that any of them moved independently of the rest. The most prominent

of them are represented in Fig. 1. There was no ascites. In each of the cysts in the hypogastric region and in that in the left flank a thrill—the so-called hydatid fremitus—could be elicited on sharp percussion. The liver was considerably enlarged, especially the left lobe. In the middle line the dulness extended downwards for eight inches, from the level of the fifth costal cartilage to within one inch of the umbilicus. In the mamillary line the dulness extended six inches and a half downwards from the fifth space. The epigastrium was remarkably prominent, tense, and smooth, dull on percussion, and gave an obscure sense of fluctuation on palpation, and an indistinct thrill on percussion. The patient had always been regular, and the last period was ten days before admission. On vaginal examination the cervix was found to be dragged upwards and to the left almost out of reach. The posterior cul-de-sac was occupied by a fluctuating mass, which on bimanual examination was found to be continuous with the fluctuating swelling on the right of the hypogastrium. The mass on the left of the hypogastrium could also be felt through the vaginal roof; but it was clear that the two

FIG. 1.

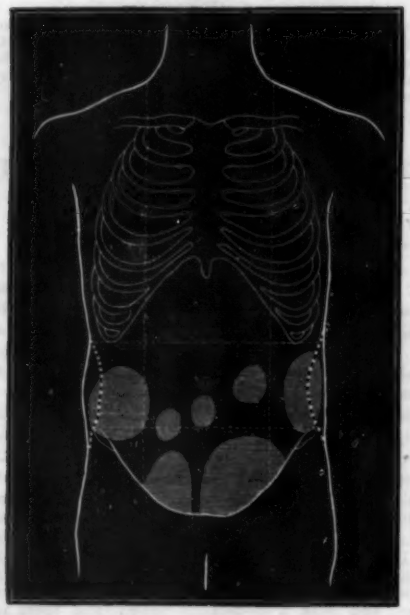
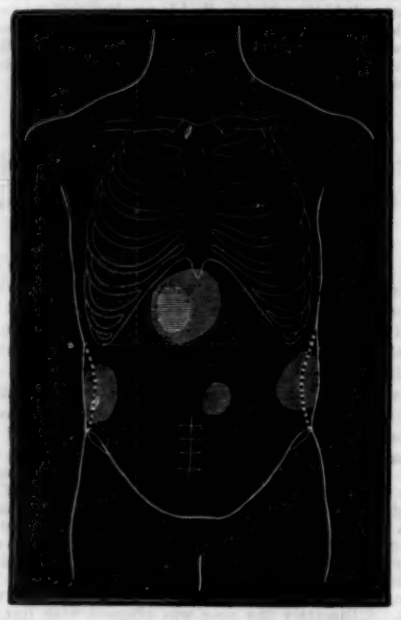


FIG. 2.



cysts could be moved separately, and were independent. The diagnosis lay between ovarian cystoma, affecting both sides, and hydatid disease of both broad ligaments, the peritoneum, and liver. I decided in favour of the latter for the following reasons. A cystoma affecting both ovaries would probably have interfered with menstruation. The thrill detected in the cysts, though not in my opinion pathognomonic of hydatid fluid, indicated a thinner fluid than would be likely to be found in a compound proliferous cyst. Ovarian tumours would not explain the enlargement and probable fluctuation of the left lobe of the liver. The prevailing opinion of my colleagues was that the case was one of ovarian tumour or tumours. One (taking into consideration the scattered distribution of the tumours and the evident enlargement of the liver) suggested sarcoma, with secondary growths in the liver. It was decided that an exploratory incision should be made, and the operation was performed on August 4th, 1885, by my late colleague, Mr. Beddard. The disease proved to be hydatid. As many cysts as could be reached were emptied, and the margins of the largest one, which could not be removed, were stitched to the edges of the wound. There escaped about eighty to ninety ounces of fluid, which was slightly albuminous, and contained echinococcus heads and hooklets, though not in large numbers. From time to time during the next six months cysts and fluid from the sudden rupture of cysts continued to be discharged. Fig. 2, from a photograph taken on Oct. 8th, 1885, shows the epigastric swelling, and the degree of abdominal enlargement remaining after the discharge of many cysts and several pints of fluid. On Nov. 14th, 1885, the large cyst in the liver was aspirated, and a pint of clear fluid withdrawn. A vaginal examination showed that the two pelvic cysts were gone, but the uterus was still somewhat dragged upwards and fixed and the vaginal roof indurated. The organs in the pelvis and the lower part of the abdomen were evidently all matted together. There was a fetid purulent discharge, considerable in quantity, evidently coming from the abdomen, but the sinus could not be discovered. On Jan. 5th, 1886, a few more cysts came away through the sinus remaining in the cicatrix of the abdominal incision. The patient had been getting up for a couple of months, and had gained flesh, and a few days later went home at her own request. On March 30th, 1886, she was readmitted. A month ago four more cysts had been discharged from the still unhealed sinus. A week ago she menstruated for the first time since the operation.

The condition of the abdomen is represented in Fig. 3. On April 8th she was put under the influence of ether, and the cyst to the left of the umbilicus was aspirated, six ounces of clear fluid being removed. Subsequently the cyst in the right flank was aspirated, and sixteen ounces removed. Both lots of fluid were clear, of sp. gr. 1010, and contained no albumen, but abundant hooklets. On April 15th the cyst in the left flank was aspirated, and twenty-seven ounces of fluid were withdrawn. At the same time the most prominent part of the swelling in the left lobe of the liver was also aspirated, but only about half an ounce of fluid, copiously mixed with blood, was obtained. There were numerous echinococcus heads in the blood-stained fluid from the liver, and a few in the fluid from the left flank. On two subsequent occasions, as the prominence of the liver did not diminish, exploration was made with a fine needle, though nothing but blood was obtained. The patient gradually became quite stout and robust-looking, menstruation was re-established regularly, the purulent vaginal discharge ceased, and the abdominal sinus tended to close. She became an out-patient again on June 12th, wearing an abdominal belt because of a slight hernial protrusion of the cicatrix. On Nov. 12th, 1886, she was readmitted. She had continued to work up to this time.

On the 15th a cyst which was found in the right broad ligament was aspirated through the vagina, and eight ounces and a half of clear fluid, containing hooklets, but no albumen, were withdrawn. The liver was aspirated on the same occasion, but only one ounce of fluid mixed with blood was obtained. It contained, however, a great abundance of echinococcus heads. The pelvic cyst filled again rapidly and suppurated. On Nov. 30th there was a sudden discharge of about a pint of offensive pus by the vagina, and the temperature immediately fell and continued normal. On Jan. 7th, 1887, a fresh cyst was discovered in the lower margin of the right extremity of the right lobe of the liver, projecting in the right flank below the tenth rib. It was aspirated and nineteen ounces of slightly opalescent fluid withdrawn, containing a trace of albumen and many hundreds of echinococcus heads. She became an out-patient again at

FIG. 3.

the end of January. It was discovered that she had been married about the middle of last year. By the end of March the vaginal discharge had ceased, the uterus was getting movable again, and the induration of the vaginal roof was nearly gone. She menstruated regularly. She was readmitted in October, 1887. The liver was still greatly enlarged, and reached 6½ in. downwards from the sixth rib in the parasternal line, extending 4 in. beyond the costal margin. In the middle line it extended to within 1½ in. of the umbilicus. The left lobe was rounded and prominent, and the patient complained much of a feeling of distension in the epigastrium. The aspirating needle was therefore used again, but only a few drachms of fluid withdrawn. The fluid, however, showed abundant hooklets under the microscope. On Feb. 20th, 1888, she came in again complaining still of distension in the epigastrium. The liver was explored, but only a very small quantity of grumous fluid, consisting chiefly of broken-down cyst wall and hooklets, was obtained. She was known to have remained in good health till the middle of 1890, but since then she has left the district and has been lost sight of.

Nottingham.

NOTES ON A

CASE OF GUNSHOT INJURY OF THE ARM; AMPUTATION THROUGH THE SURGICAL NECK OF THE HUMERUS; RECOVERY.

BY EDWARD A. PIGGOTT, L.R.C.P. & S.EDIN., &C.

ON Oct. 16th, 1890, William D——, aged twenty-seven, hay-cutter by occupation, of strong physique and healthy appearance, was employed in what is locally known as "brushing" walnuts, and, for the purpose of scaring rooks whilst so engaged, had an old-fashioned muzzle-loading fowling-piece on the ground. He had just loaded the gun in question with No. 4 shot and an extra charge of powder, placing it amongst some faggots, stock downwards, ready for immediate use. After a time, wishing to make use of the gun, he was in the act of withdrawing it from the faggots, with the right hand grasping the barrel, and the muzzle pointing towards himself, when the piece exploded, the whole charge entering the left arm. He at once called for assistance to a man a few yards off, saying that his arm was shot through; he then walked some considerable distance (250 to 300 yards) to his home and was put to bed. The patient was perfectly sensible and suffered little from shock. Upon the anterior aspect of the left arm, at about the junction of the upper with the middle third of the humerus, was a circular wound about 1⅛ in. in diameter; the integument around the aperture was burnt by the explosion. Having applied a tourniquet as high as possible upon the limb to control the hæmorrhage, which was profuse, I passed a finger into the wound; the humerus could be felt completely shattered; apparently there was no wound of exit. Dr. Hargrave of Haverhill saw the case with me in consultation, and it was decided to amputate as near the shoulder-joint as was practicable without actually disarticulating. This decision was arrived at by reason of the impossibility of diagnosing the exact extent of the injury in an upward direction, also owing to the extensive lesion to muscles and surrounding structures. Two hours and a half after receipt of the injury the patient was placed under the influence of ether and the arm removed by transfixion. All detached splinters of bone having been carefully dissected out, the saw was applied through the surgical neck, the head of the humerus being left *in situ*. It was observed that there was considerable ecchymosis of the integument in the vicinity of the posterior inferior angle of the axillary space. In this position, between the chest wall and the integument, was found the whole charge of shot, which, after striking and shattering the shaft of the humerus, was deflected downwards, inwards, and backwards into the axilla, whence it was removed. The flaps and wound generally were now well sponged out with a carbolic solution, two drainage-tubes inserted, the edges brought together, sufficient silver wire sutures introduced to keep the parts in apposition and take off tension, a counter incision being made through the integument in the neighbourhood where the charge of shot was discovered, for the purpose of drainage. Finally, the wound was well dusted with iodoform powder (50 per cent.), and dressed with carbolic absorbent wool and antiseptic gauze. A draught containing thirty minims of tincture of opium, combined with forty minims of aromatic spirits of ammonia, was administered, and the patient made comfortable for the night.

On Oct. 17th, at 2.30 P.M., I was sent for hurriedly, the statement being that hæmorrhage was taking place, but found it was nothing more than the usual venous oozing after operation. Pulse 108. As the patient appeared rather nervous as to a recurrence of hæmorrhage, fifteen minims of tincture of opium were prescribed every three hours. On the 26th the pulse was 80 and the temperature normal; suppuration rather free. On Nov. 14th several of the sutures were removed, and the operation wound was found almost healed in its entire length. On the 17th there was unequivocal evidence of an abscess forming in the neighbourhood of the inferior angle of the scapula. An incision was made in that region, and about two teaspoonfuls of sanious pus evacuated. From this date the wound was dressed upon alternate days, a considerable number of shot periodically coming away from the drainage wound, most of them being mere flattened pieces of lead; a piece of newspaper also came away, the remains of the wad, the patient having utilised a portion of newspaper for that purpose. Owing to the severe frost, the patient was debarred from out-door exercise; the only evidence of remaining mischief being a small sinus in connexion with the abscess cavity, formed by the few scattered shot which had lodged.

As an instance of the proximity of the muzzle of the gun, the patient informed me that his coat sleeve was actually on fire. Several of the comminuted portions of the humerus that were dissected from the wound, bearing out his statement, were blackened, as if they had been partially charred. The almost total absence of shock was remarkable. I afterwards discovered that the charge did not consist entirely of No. 4 shot, but that there was a quantity of what is known as "swan" shot amongst it. I cannot conclude these remarks without expressing my thanks for the prompt

and efficient assistance rendered on the night of the accident by Dr. Herbert J. Hargrave of Haverhill and his assistant, W. Brewster, Esq., M.R.C.S., of Stoke-by-Clare.

Clare, Suffolk.

HYSTERICAL ISCHURIA.

By JAMES LITTLE, M.D.

THE following abstract of the notes of a case of the above very rare disease may be found of interest:—

On Nov. 25th, 1889, I was called to see Hannah P——, aged eighteen years. She was reported to be suffering from retention or suppression of urine. Family history neurotic. Her health had been generally good up to a few days before, when she was greatly frightened by a man with a travelling bear. I found her suffering from considerable anæmia and general debility, though well nourished and muscular. She had no pain anywhere. Her bladder was empty, and she and her friends adhered to the statement that she had passed no urine since the time of the fright. Menstruation had been regular but never very free. Appetite bad, but no nausea or vomiting; bowels costive; other symptoms normal. As I did not believe the story of the suppression of urine, I told her mother that it was a case of hysteria, and that she was probably making away with the urine secretly. I ordered her to be closely watched, and to have an aperient, with quinine and iron and good diet.—Nov. 29th: Passed urine on the 27th, but none since; menstruation commenced to-day; suffers much from dyspepsia. Stopped quinine and iron, and gave bicarbonate and citrate of potash, with rhubarb and strychnia.—Dec. 1st: Urine passed in bed, but a small quantity was obtained for examination, and was found to be free from albumen.—11th: Had several fits, and was held down by friends. They were described as commencing with convulsions, followed by a stony staring appearance, and afterwards by apparent sleep. Had not bitten her tongue. My remark on this point was overheard by the patient.—24th: Since last report has been having the fits regularly. On one occasion it was stated that her tongue was bitten nearly through, but on my seeing her the same day I could find no trace of it. Since Dec. 1st she has passed urine only once a week, and that only in moderate quantity. Her mother states that about the fourth day after passing urine she begins to vomit mucoid matter, which patient says has a fæcal taste. This continues daily several times a day till patient passes urine, when it ceases till a corresponding period in the next cycle. Bowels still very constipated, but relieved by castor oil.—Jan. 6th, 1890: Looks very anæmic. Fits still continue at intervals. She now complains of coldness in and inability to use the lower limbs, though she can do so during the fit. She complains of a tight ring round the lower third of both thighs. Below this point a fine trocar pushed through the skin causes no pain except over the great, second, and third toes. No ovarian pain or hyperæsthesia. Menstruation began on Jan. 3rd, and continued four days.—13th: Looks better. There is less anæmia, and the pulse is stronger. Limbs cold, but sensibility of skin improved. Soles of feet and all the toes sensitive; limbs above this still insensible. Can move toes and limbs. Applied faradaic current. Electro-sensibility slightly diminished; electro-contractility normal. Still feels band above knees. Up to this time she has been passing her urine only once a week.—21st: Very weak and anæmic. Skin generally cold. Sensibility returned to skin as high as the knees. Urine passed on 16th, 18th, and 20th. Vomits occasionally. I obtained some of the vomit, which on boiling gave out a strongly urinous smell.—29th: Stronger. Sensibility of skin improved. Passed urine on 23rd, 25th, and 27th.—Feb. 8th: Much better in every way. Passed urine on Feb. 1st, 4th, twice on 6th, and three times on 7th. From this time improvement was steady in every respect. Urination continued natural, but the bowels were still very torpid, and were never moved without medicine. She regained the use of her limbs very slowly.—March 29th: Menstruation, suspended since Jan. 1st, began again to-day.—May 17th: Progress steady, but slow, due probably to environment. Bowels costive; menstruation missed last period. Recommended change of air, which, however, was not obtained.

Remarks.—The existence of this disease has been very much questioned by many, but most fair-minded men will admit that its reality has been established by the labours of Laycock, Charcot, and others. Its great rarity is attested by Charcot, who devoted one of his earlier lectures at the Salpêtrière to the subject. It may readily be said that it was a case of simulation, that the patient found means to get rid of the urine without the knowledge of the attendants, or even that she drank it, as has no doubt happened in such cases. It was, of course, impossible to have her watched so closely in her own house as she would have been in hospital, and it was unfortunate that the prevalence of influenza prevented her being seen every day and the vomited matters from being more accurately examined, but she was watched sufficiently closely to prevent her keeping up the deception for the whole of the period. Of the anæsthesia and the coldness of the limbs there can be no doubt whatever. Her account of the vomited matters, too, was given before she saw that I attached any importance to the symptom. She was quite ready to take advantage of any interest displayed by the medical attendant in her symptoms. On my mentioning that she had not bitten her tongue during the fits, she was ready on the next occasion with the statement that it was bitten nearly through, which turned out on examination to be incorrect. The mechanism of hysterical ischuria and anæsthesia has not yet been satisfactorily made out. That it is due to vaso-motor influences is most probable. There can be little doubt that the vomiting was supplemental to the excretion by the kidneys. Treatment consisted in the steady exhibition of remedies for the anæmia, with stomachics and purgatives. The interrupted current was also of great service. She would no doubt have made a much more rapid recovery in a massage institution, but she strongly objected to go, and was supported in her refusal by her parents. I understand that she has since relapsed in regard to some of her symptoms, but have not seen her since.

Maryport.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

NOTES ON A CASE OF ANEURYSM OF THE ABDOMINAL AORTA.

By T. RIDLEY BAILEY, M.D. EDIN.

SOME time ago I was called suddenly to see J. J——, a chemist, aged forty-five years, who had been seized with violent hæmatemesis. When I reached his house I found him lying on a sofa in a state almost of collapse. I was shown about two pints of blood, bright red in colour, with some dark clots mixed with it. This, I was told, he had vomited, and that he had passed a similar quantity per anum. I ordered ice and brandy to be at once administered, and gave the following every two hours:—Ten minims of dilute sulphuric acid, half a drachm of liquid extract of ergot, ten minims of spirit of chloroform water, to be taken once. The patient to be kept quiet and not moved on any account. He was to have only liquid nourishment, and that quite cold. By these means the hæmorrhage was checked, the state of collapse recovered from, and immediate danger removed. It was then found, on careful examination, that there was a swelling in the epigastrium about the size of an orange, which was markedly pulsating. With the stethoscope a double bruit could be easily heard over it. The man informed me that he had had this tumour for two years, that lately it had gradually increased in size. Further, he said, he had suffered during the same period from pains in the back which he considered to be lumbago. The next day I met his brother, a medical man from London, in consultation. He confirmed the diagnosis of abdominal aneurysm, and ordered the ice, ergot, &c., to be continued. The condition of the patient was very critical, and his friends were advised that he could not live long. On the fourth day hæmorrhage from the mouth recurred, almost half a pint of blood being lost. He was troubled with a little cough, attended with occasional expectoration of mucus streaked with blood. Bowels constipated. On the eighth day the

patient was seized with a convulsive attack, which the friends described as a fit of ague, and died somewhat suddenly. Only a very limited post-mortem examination was allowed. A large rounded tumour was found on the front of the abdominal aorta, communicating with it by a large opening. It was situated just below the liver and close to the pylorus. The sac had ruptured into the stomach, the opening being large enough to admit a finger. The stomach was full of dark coagulated blood, some also being found in the intestines. Notwithstanding the fact that this tumour had been gradually developing for two years, and that the patient had also suffered from what he termed "lumbago of the spine," he had no idea of the nature of his complaint, though his brother afterwards told me that he suspected aneurysm the last time he saw him previously to his fatal illness.

I think there can be no doubt that in this case the sac had partially ruptured before I first saw the patient. A clot probably formed and plugged the opening until it was displaced on the occasion of the subsequent hæmorrhage. This would disprove the view, held by some physicians, that in cases of aortic aneurysm there are no preliminary hæmorrhages, but that the rupture of the sac takes place suddenly, followed at once by bleeding and death. I may also mention a case I saw in Professor Fraser's wards in the Edinburgh Royal Infirmary in the winter of 1881–82, in which preliminary hæmorrhages occurred. At the clinical lecture delivered upon the case the post-mortem specimen was shown. There was a large aortic aneurysm which had pressed upon the œsophagus, interfering greatly with deglutition. The sac ruptured into the gullet through two openings, causing hæmorrhage and death, but I am unable to state if one opening formed sooner than the other. It would seem somewhat remarkable that a large vessel like the aorta could rupture without causing immediate death, and yet there can be no doubt of it from this case. Further, in THE LANCET of Oct. 30th, 1886, page 814, there is a case described by Dr. W. A. Holmes, in which a rupture five-eighths of an inch in length apparently occurred three-quarters of an hour before death, and the pericardium was found on post-mortem examination to be filled with coagulated blood. In his remarks upon the case Dr. Holmes adds: "I have seen a specimen where the aorta ruptured, and the patient recovered and lived for months after, but died from a subsequent rupture." It is interesting to note that in the case of my patient there were hardly any of the secondary effects or evidences of pressure developed. There was a certain amount of emaciation, but no signs of dropsy or displacement of organs. This was no doubt due to the development of the sac in the abdomen, where there is room for large tumours to appear gradually, without much alteration of viscera. In the thorax there would, of course, have been interference with respiration and other symptoms of pressure.

Bilston.

THE INFECTIOUS AND INCUBATION PERIOD OF INFLUENZA.

BY AUGUSTUS HENRY BAMPTON, M.D., M.S.

WHEN an epidemic is rapid in its manifestation and is widespread, it is difficult to determine offhand whether the disease is personally infectious or is conveyed more generally in the atmosphere similarly to blight. The following cases are examples of infection being personally conveyed, and are interesting inasmuch as they show duration of incubation, and at what stage it is infectious. Early on May 20th a nurse left home; later on the same day influenza broke out, and within four days six members of her family were down with it. Ignorant of this, the nurse went to her situation at the seaside, where there were no cases of influenza. On the 28th the nurse was seized with influenza. The two children in her charge were at once removed, the nurse isolated, and the room fumigated. On the 30th one of the children ailed, and on the following day was very ill. On June 1st the other child was down with influenza, and on successive days a fellow-servant, who had slept in the same bedroom, and the mother of the children, who subsequently nursed them, fell ill. The grandmother, who then did some nursing, also took it. There were no other cases in the village. It is evident that the period of incubation in the case of the nurse was eight days. This is, I believe, about the extreme limit of the incubation period. Although the children did not go near the nurse after the disease developed, yet they were the next to be attacked, showing that the disease is acutely infectious from its earliest manifestation. If the nurse got it by personal contact, which is probable, she also must have taken it before it had fully developed. In several instances I have noticed a premonitory stage of forty-eight hours of biliousness and malaise, without rise of temperature. With some the disease goes no further, and leads people to argue that they are not susceptible, and therefore the complaint is not infectious. It may be that this premonitory stage and the period of incubation have been confounded one with the other by some observers, or it may be that they are sometimes identical. May I remark here on the importance of thorough disinfection of houses where persons have been attacked by influenza, if we are not to have another outburst. Cases occur in infected houses at a month's interval. It is the conviction of many that the disease was carried along railway routes, and lurks in the carriages! *Verbum sap.*

Ilkley-in-Wharfedale.

A CASE OF FOUR ATTACKS OF APPENDICITIS IN ONE YEAR; EXCISION OF THE APPENDIX; ABSENCE OF ANY FURTHER SYMPTOMS A YEAR AFTERWARDS.

BY A. ERNEST MAYLARD, B.S., M.B. LOND.,
SENIOR SURGEON TO THE VICTORIA INFIRMARY, GLASGOW.

IN view of the recent discussions which have taken place regarding the treatment of this particular class of diseases, the record of the present case may not be without interest. The patient, Mr. G. G——, a strong and healthy young fellow of twenty-one, was under the care of my friend, Dr. Alex. Napier, of Crosshill, to whom it had suggested itself that the case was one particularly well suited for the operation of excision of the appendix. He asked me to see the patient with him, and I concurred both in the diagnosis and in the treatment proposed. The clinical notes of the case, as kindly furnished by Dr. Napier, are briefly as follows:—June 4th, 1889: First attack slight, lasted only a few days, and subdued by rest and a few doses of an opiate. Constipation, pain, and tenderness in right iliac fossa, some distension; temperature not much elevated.—July 14th: Second attack, after lawn tennis, very severe; temperature ran up to and over 103° F.; pulse rapid; vomiting for several days; constipation; coated tongue. Marked distension, universal tenderness, and tympanitic percussion note. Most acute pain in right iliac fossa. Patient very seriously ill for a few days, but gradually recovered, as before, by rest, opiates, poultices, and limited diet.—Oct. 7th: Third attack, after some indiscretion in the way of exercise. Again a severe attack, much like the last; overcome in the same way.—April 2nd, 1890: Fourth attack, less severe than the last two, but marked by exactly the same general symptoms. In all four attacks, as the symptoms passed off, the pulse fell markedly—to 44 on one occasion. On April 8th I saw the patient with Dr. Napier, he was then recovering from his attack. We had him removed to the Training Home for Nurses, where, with the assistance of Dr. Rutherfurd, I excised the appendix on the 16th.—Operation: An incision was made in the nipple line, over the cæcum and ascending colon. The presenting bowel was traced downwards until the junction with the ileum was reached. The finger, then inserted beneath the cæcum, felt the appendix distended and fixed. It formed a tense elastic tumour about the size of a little finger. For about half an inch at its cæcal extremity it was normal in calibre, but from that point onwards the appendix was dilated. Around this narrow normal part of the appendix a double ligature was passed, and the neck divided between. In the first attempt to detach the appendix from its connexion it burst, and some mucus-like material escaped. The adhesions were in some places intimate, but at others recent and very vascular. After complete severance the oozing was so free that pressure had to be applied for some short time. The wound was dressed once after the operation, and healed by primary union. The patient's temperature was normal throughout his recovery, and no untoward symptoms of any kind showed themselves. He was kept rigidly on his back for a month to allow of firm union in the parietal wound.—State of the appendix: On slitting up the viscus it was

found to be empty, and on everting it the lining of its walls had the appearance of pulpy granulation tissue. No canal could be made out at its cæcal extremity.

It is now a year since the operation. The patient has enjoyed perfect health, and is quite free from any feeling of weakness in the region of the cicatrix. The diagnosis of catarrhal appendicitis proved correct, and so, also, would seem the treatment. Whether this patient would, by conservative measures, have reached a period when no further repetition of his troubles would have taken place, or whether the time might have come for opening an abscess in the region of the appendix, or even graver measures, it is impossible to say. The operation can hardly be said to have carried any risks with it, and its result was and has been to relieve him completely of his trouble.

Glasgow.

PARTIAL ASPHYXIA FROM IMPACTION OF FALSE TEETH IN THE ŒSOPHAGUS DURING AN EPILEPTIC FIT; RECOVERY.

BY A. STANHOPE DAWSON, L.R.C.P., L.R.C.S. ED.

CALLED suddenly to W. E——, aged seventy-eight, I found the patient suffering from stertorous breathing, cyanotic, and in a severe epileptic seizure. On opening his mouth to examine the tongue I found the top plate and false teeth had been swallowed. After considerable difficulty I hooked up the plate; but the patient being a chronic bronchitic subject, an alarming accumulation of tenacious phlegm had taken place, due mainly to the pressure of the tooth-plate on the epiglottis. I asked for strong hen feathers, and by their aid for half an hour removed the phlegm, my patient breathing more easily, but the pulse becoming intermittent, I administered twenty drops of sulphuric ether hypodermically; this, with brandy followed by a stimulating expectorant, caused the patient to rally, subsequent soreness of mouth and throat being relieved by ice and champagne. I firmly believe the removal of phlegm by the feathers saved my patient's life. I was called in on June 7th, and to-day (June 14th) he has taken bread and milk freely. My reason for reporting the case is to suggest that surgeons should not forget that "a feather may turn the scale." In future I shall keep one or two brushes at hand, such as are sold by musical instrument vendors for cleaning the flute, which, I venture to believe, would be of more use than the feathers. These brushes being mounted on wire, they may be bent to a convenient angle, like the throat brushes in ordinary use.

Cockermouth.

A CASE OF PLACENTA PRÆVIA IN A PATIENT SUFFERING FROM MITRAL VALVULAR DISEASE.

BY PHILIP E. HILL, M.R.C.S. ENG., L.S.A. LOND.

ON May 31st, at 11 P.M., I was called to Mrs. E——, twenty-eight years of age, the subject of mitral disease, eight months advanced in her fifth pregnancy. Immediately previous to my being sent for, the patient was surprised by a sudden gush of blood from the uterus, without any shock or violent exertion to account for it; she was in bed and at perfect rest. By the time I arrived the hæmorrhage had moderated. Upon examination per vaginam, I found the os slightly dilated, but not sufficiently so to enable me to make out the presentation; the cervix, however, felt more spongy than usual. The case, to my mind, peculiarly pointed to a placental presentation. For the present, therefore, my chief care was to arrest the discharge, and for this purpose I directed the patient to be kept cool, quiet, and in the recumbent position, and ordered fifteen minims of dilute sulphuric acid every three hours. After explaining to the friends my opinion as to the probable nature of the case, I left, giving instructions that should pain occur or the hæmorhage return I was to be at once sent for. About an hour subsequently I was again summoned, when I found the hæmorrhage had returned and uterine action commenced. Upon examination, the os was soft and dilatable, the head presenting, and the placenta partially so, the mass being felt detached and to the left side. During a pain a torrent of florid blood gushed from the uterus, which at once placed the patient in extreme danger. I now felt that I must immediately determine the course to pursue for the rescue of the mother from impending death, as well as the possible preservation of the child. I therefore passed two fingers inside the os, and detached as much of the placenta as I could. I then cut two V-shaped notches in the nail of the index finger of my right hand, and with it sawed through the tough and receding membranes. This being done, the liquor amnii escaped, the head at once descended, all hæmorrhage ceased, and the child was delivered at 1.15 A.M., but it was dead. After remaining for two hours, I left, the patient feeling much stronger, more comfortable, the radial pulse 72, of fair strength and volume. At 8 A.M. I was again hastily summoned, when I found the following condition of things. The pulse was failing, being weak, small, and intermittent; the patient was blanched and covered with a cold, clammy sweat; vomiting, with restlessness, impairment of vision, and delirium. The uterus was well contracted, firm, and there was no hæmorrhage. I immediately gave her brandy and ether, applied a mustard leaf over the heart, hot-water bottles to the extremities, and prescribed the following mixture: Twenty minims of tincture of digitalis, half a drachm of spirit of cajuput, camphor mixture to one ounce, to be taken every three hours. Gradually the heart regained tone and steadiness, but she lapsed almost into the same condition periodically upon the slightest movement or attempt at sleep. The above symptoms slowly disappeared, and the patient is now making a gradual and uninterrupted recovery.

Crickhowell.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

MIDDLESEX HOSPITAL.

SOME RECENT CASES OF INJURY TO THE HEAD.

(Under the care of Mr. HULKE.)

THESE cases of injury to the cranium present features which render them of considerable interest. In the first the severity of the injury to the vault of the skull appeared to produce but little impression in the way of shock on the patient, and the case presents another example of the amount of injury which may occasionally be inflicted and the sufferer quite unable to realise it, because able to walk about without much inconvenience or local pain. The treatment of the case by the application of the trephine was successful, and there is nothing beyond the copious watery discharge from the wound, a rare occurrence after fracture of the vault, to attract attention in the subsequent progress of the case. The second patient, who had received a punctured wound of the orbit, probably accompanied by fracture of the orbital roof, recovered from a condition which (if the bone was indeed fractured) is so frequently fatal that it should be placed on record. The reason for this statement will be more evident to our readers when we remind them that the results of such injury have been estimated as fatal in seventeen out of eighteen of those injured. The third case presents features very uncommon as the result of contusion of the skull. Mr. Hulke considers the paralyses to have been of peripheral origin, and in a clinical lecture remarks: "The supposition of syphilis suggested by the early death of all the patient's children is consistent with the course of her disorder, and it is supported by the results of treatment. When she first entered the hospital the question of syphilis was considered, and it was thought, upon the whole, at that time, before we had had much opportunity of observing her, that probably she was suffering from traumatic pericranitis. Later, the presence of a syphilitic factor gained ground, and she was given iodide of potassium, but without obvious benefit. After her return the dose of iodide of potassium was increased from five to fifteen grains three

times a day, and this was followed by improvement. Her headaches became very much less severe, and though no diminution in the bulk of the temporal and post-mastoid swellings was observable, they became less tender. Upon observing this, the dose of iodide of potassium was increased from fifteen to twenty grains, and apparently with advantage. The ocular palsies disappeared." Mr. Hulke also pointed out that a later extension of the disorder whilst under the iodide treatment did not exclude the hypothesis of a syphilitic origin.

CASE 1. *Compound, comminuted, depressed fracture of skull; trephining; recovery.*—On Nov. 19th last, soon after 9 A.M., E. F——, aged thirty-six, a builder's labourer, was hit on the head by a brick which fell out of a bucket some twenty feet above him, whilst this was being hoisted to a scaffold. He fell on the ground, was dazed for a few moments, then rose and resumed his work for an hour, when his mates, noticing his face bloody, sent him to the hospital. He walked into the surgery to have his head dressed. As he could not take off his cap because it seemed tightly fastened to his head the casualty house surgeon removed it by cutting through its lining, and then found a scalp wound crossing the parietal region in a nearly sagittal direction, about two inches long, exposing a depressed comminuted fracture of the vault. At each end of this depression pieces of the cap lining were entangled and tightly held between the fragments. The man, a very stolid fellow, would not believe his hurt to be serious; he refused to stay and be an in-patient, and insisted on being allowed to go home, which he did, a distance of about half a mile. He was perfectly conscious, he walked without difficulty, and no one could have inferred from his appearance and manner that he had sustained a very grave injury. Two hours later the house surgeon, realising the great risks to which the ignorant fellow was exposing himself, went to his lodgings, and with some trouble persuaded him to return to the hospital, where Mr. Hulke saw him at 1.30 P.M., about four hours after the occurrence of the accident, and confirmed the existence of the injuries above mentioned. As the examination hurt him, he readily fell in with the idea of taking chloroform. This having been given him, the scalp wound was enlarged, the depressed fragments, tightly impacted, were raised, one loose piece was taken away, and all the bits of cap lining were removed. To accomplish this it was necessary to apply a trephine at each end of the depression, which was boat shaped, with sides falling in steeply to the keel, and also meeting at each end. It was estimated approximately to be about six centimetres long and two centimetres wide at its middle. Its position was nearer the upper than the lower border of the parietal bone. From the posterior end of the depression a fissure, at its commencement about two millimetres wide, ran almost directly backwards, its extent was not ascertained. The dura mater under the depressed bone, so far as it was apparent, and that corresponding to the trephine holes, was coated with blood-clot, and mingled with this, at the posterior of the two openings, were pieces of a soft, greyish substance very like brain tissue. The wound having been irrigated with a watery solution of mercuric perchloride (1 in 2000), the scalp was united with sutures, drainage provided for, and a light, dry, antiseptic dressing applied. Restlessness, which set in the same evening, was treated with morphia, after which he slept. There continued for several days a copious watery discharge through the drain. Primary union took place throughout nearly the entire length of the divided scalp. The case ran an afebrile course. The patient was soon able to leave his bed, and for several weeks he has appeared convalescent; but he was detained in the hospital because a small sinus persisted at each end of the wound, and through one of these a small area of bare bone is felt, and until this has exfoliated and cicatrisation is completed, it would be imprudent to let him expose himself to the vicissitudes of his calling. He has been recently seen, perfectly well, the wound soundly healed.

CASE 2. *Punctured wound of orbit, with lodgment of a foreign body; perhaps perforation of orbital roof.* (From notes taken by the dresser.)—At 10.45 P.M. on May 9th, 1891, W. B——, aged thirty-six, a tailor, drunk and noisy, was brought to the hospital. He had, he said, pain in the right eye. The house surgeon, Mr. Soulby, on examining this found the eyeball pressed down from its central position by a hard, oval, perforated object, which had pierced the upper sinus of the conjunctiva and buried itself between the eyeball and the orbital roof. On seizing the object with a forceps it was found to be so tightly fixed as to strongly suggest that it had pierced and was grasped by bone. With some effort, by traction in a forward and downward direction, the foreign body was extracted entire, and it proved to be the vulcanite mouthpiece of a pipe, 4·5 centimetres long, 1·4 centimetres across at its base, and slightly tapering to the free end. In the upper eyelid was a superficial lacerated wound, which did not communicate with that made by the foreign body. He was stated to have been struck by a man who had a pipe in his hand, and he was brought to the hospital directly after the injury. This was regarded as so trivial by himself and his friends that he was with difficulty persuaded to remain. Conspicuous symptoms of cerebral injury have throughout been absent, yet we are not left completely without warning that such an injury may have occurred, for his temperature and pulse-rate until the last day or two have been slightly subnormal. The external wounds quickly closed, and he soon felt so little ill that he rebelled against being kept in bed and the moderate diet which was allowed him. He left the hospital a few days afterwards, much against the wish of Mr. Hulke, and with a full explanation of the risks he was incurring by this course.

CASE 3. *Contusion of head followed by a widely distributed pericranitis.*—On Oct. 11th, 1890, C. P——, aged twenty-six, was admitted into Bird Ward for the effects of an injury of the head alleged to have been occasioned fourteen days previously by the patient striking her cheek with the handle of a saucepan. Below the right eye, involving the lower eyelid and the malar region, were traces of a fading ecchymosis, and here, and in the adjoining temple, right temporal region, the subcutaneous tissues were œdematously puffy, occasioning obvious swelling, most prominent in the temple just over the zygoma, and ceasing below the curved line, limiting the temporal fossa superiorly. Quite distinct from this, a prominent, obviously fluctuating swelling was present over the right parietal bone, the limits of which, though not accurately definable, seemed not to transgress the area of this bone. This swelling was not particularly tender or painful, nor was the scalp over it hotter than elsewhere, nor was it discoloured. She had a very anæmic, feeble appearance, suggestive of chronic illness, of privations, and of work beyond her strength. Her statement that until the accident she had always enjoyed excellent health was discredited by the fact that not one of her children (four) had survived its infancy. She had headache, a furred tongue, and her temperature was 103° F. With the exception of an interval of one week spent at home, she has remained in the hospital up to the present time; and throughout this period her temperature has continued high. It has not again reached 103°, but it has a few times exceed 102°, very frequently passed above 101°, has commonly oscillated about 100°, and on one occasion only was it found to have fallen to the normal line, 98·4°. Headache has been constant, variable in degree and in seat, now chiefly frontal, then occipital, often general. On Nov. 10th a slight inequality of the pupils was observed, the right pupil appearing to be slightly larger, and a tender and puffy swelling of the scalp behind the left mastoid process was noticed. On the 11th the right forehead was puffy. On the 13th there was increased swelling of the right temple and an elastic puffiness without great tenderness; no heat or redness of integument. Headache very severe. On the 17th the right cheek was swollen. An alveolar abscess connected with carious roots of right molar teeth was detected and opened, giving escape to about two drachms of very fetid pus. This occasioned no further trouble, and soon closed under local treatment. In the early part of December a puffy swelling appeared behind the right mastoid region, resembling that on the left side, which continued without obvious change, and a chain of slightly swollen and tender lymph-glands was discovered along the posterior border of the right sterno-mastoid muscle. About this time the fluctuating swelling over the right parietal bone and the ecchymosis of the right cheek had quite disappeared. Her condition continued the same with little notable change until Dec. 22nd, except that the puffy swellings in both temples had become perceptibly larger. Frightened by the apprehension of an operation, which had been spoke of in her presence, she now went home. On Dec. 30th she sought readmission, finding herself quite unable to discharge her domestic duties. On Jan. 1st last

this note was taken of her condition on that day: Face pale, waxy, its integument smooth, shiny, devoid of wrinkles, and puffed. Right temporal fossa, its lower part just above the zygoma distinctly prominent, the prominence fading out insensibly upwards, but traceable nearly to the curved line running backwards from the external process of the frontal bone above the temporal fossa. The integument here cannot be pinched up in a fold, but it and the underlying fatty tissue are soft, and both these are readily movable upon the deep temporal fascia. The contractions of the temporal muscle, when the teeth are tightly clenched, are scarcely perceptible to the finger-tip placed on the muscle, they appear hampered by the presence of a deep swelling firmer than the superficial puffiness. She cannot separate her jaws widely owing apparently to a loss of extensibility of the temporal muscles. The left temporal fossa is occupied by a similar but rather less prominent swelling. The posterior margin of the left mastoid process with the immediately adjoining occipital region and the posterior border of the right sterno-mastoid present similar swellings, and the enlarged lymph glands already mentioned along the posterior border of this muscle persist. No trace of parietal swelling remains, except a trace perhaps at the right limit of the lambdoidal suture. There is complete palsy of all muscles of the right side of the face. Deafness (absolute?) of right ear; watch tick not heard even when the watch touches the side of the head, and tuning fork inaudible. The meatus externus clear. A small defect is apparent at the lower and front part of the membrana tympani, where there is a bunch of granulations. No discharge. Temperature 100·2°; pulse 102.—Jan. 4th: She complained to the ward sister that she saw two or three things where she knew there should be only one. On investigating this next day diplopia was found limited to the left half of the visual field, with increasing horizontal separation of the images towards the left, and obliquely vertical separation of them, increasing upwards. Her intelligence is not great, and her statements as to the relative positions of the two images sometimes seemed contradictory. No absolute loss of range of mobility of the left eye, tested separately, was discernible, but in the consensual upward movement and in that towards left the left eye seemed to lag a trifle behind the right eye. On Jan. 5th some deafness of left ear; watch tick inaudible beyond nine inches. This deafness increased rapidly to the extent that on the 11th she failed to recognise words unless spoken very loudly and close to the ear. On the 12th she said the double sight had gone, and this was verified on the following day. Notwithstanding the deafness of the left ear, there has recently occurred a distinct though slight improvement in the patient's condition. She now sleeps well, her headaches are less, her diplopia is gone, but her extreme deafness has somewhat depressed her mind. She became very desponding, and in February left the Middlesex Hospital, and soon after entered Charing-cross Hospital.

ROYAL PORTSMOUTH HOSPITAL.

A CASE OF GUNSHOT WOUND OF THE SPINAL CORD; NECROPSY; REMARKS.

(Under the care of Mr. J. WARD COUSINS.)

IT is comparatively rare to meet with gunshot injuries of any severity, especially in other regions than the head, in the surgical practice of this country; so that the full description of a recent case, in which the cervical cord was injured, is important. In the Surgeon-General's account of his department during the American War there are said to have been 642 cases under treatment for gunshot wound of the spine; of these, in 91 the cervical region was wounded and 63 died. The recoveries were nearly always of patients in whom the bullet had struck a spinous or a transverse process of one of the vertebræ, and the cord had escaped. The notes of this large number of cases are admittedly imperfect, but it is stated that priapism was observed in three patients only, all of them treated for wounds of the cervical region. The account of one patient is especially interesting, for after an injury to the third cervical vertebra, in which, however, the cord was probably only contused, he suffered from paralysis of all the limbs. Recovery to a great extent ensued, in spite of necrosis of the body of the bone injured, but with atrophy and paralysis of the right shoulder and arm. For the account of this case we are indebted to Mr. J. Watson, senior house surgeon.

G. T——, aged twenty-two, a painter by trade, was admitted into the Royal Portsmouth Hospital on the evening of Saturday, April 25th, 1891, suffering from a wound in the neck produced by a revolver bullet. On admission he was quite conscious, and gave a clear account of his injury, even to the minutest details. He complained only of pain in the neck and back and of intense thirst. The breathing was even, quiet, and regular, and the pulse normal in rate. He was unable to stand or even to support himself without assistance, having lost entire power over the lower extremities; sensation and reflex action were also absent entirely in these parts. Marked priapism was present from the outset, with loss of control over the bladder. On placing him in bed the entrance aperture of the bullet was seen four inches above the left clavicle and an inch and a half to the left of the median line of the neck in front, the edges being slightly ragged and depressed and stained with gunpowder; fine grains of gunpowder were also embedded in the skin on the left side of the neck and in the skin overlying the ramus of the lower jaw and left cheek, showing that the weapon must have been fired at close range. There was a little oozing of blood from the wound at the time of admission, and the friends who brought him stated that he had not lost any considerable quantity before admission. The neck was very carefully examined externally to see whether any trace of the bullet could be felt subcutaneously, but without any result, and a small probe being gently passed in failed to touch the bullet or to show any trace of its whereabouts; it, however, passed inwards and somewhat backwards, and it was surmised that the ball was lodged high up in the spinal column. There was complete paraplegia and anæsthesia of the lower extremities, no sensation whatever being experienced on deep pinching with the finger, or on inserting pins deeply into the skin of the part. The superficial reflexes were entirely abolished, and, as before stated, priapism was present in a marked degree. The line of anæsthesia extended up to about an inch below the nipples, and was a trifle higher on the right than on the left side of the trunk. The breathing was markedly diaphragmatic, though there was some costal movement towards the upper part of the chest, but none in the lower. The tongue was dry. The patient was ordered perfect quietude in bed, with milk, eggs, and beef-tea as diet; the wound was thoroughly cleansed with perchloride of mercury solution (1 in 1000), dredged over with iodoform, and covered with a pad of salalembroth wool and a bandage. Four hours after admission the urine was drawn off by a flexible catheter, the priapism being still present as on admission. The man was still quite conscious and collected, and talked quite rationally about his affairs; he still complained greatly of pains in the back, and of numbness and tingling pains at the ends of the fingers and in the palms of the hands; he had, however, dozed for about half an hour since admission. Intense thirst was still one of his most distressing symptoms. It was deemed advisable at this stage to take his depositions before a magistrate, owing to the serious nature of his injury, and the likelihood of fatal symptoms supervening suddenly. This was accordingly done, and the patient gave a perfectly lucid description of all that had occurred, stating that his brother (who fired the shot) and a friend had had the revolver to inspect and had "snapped off" two of the chambers without any result, when he (the patient) rose from his chair to leave the room, thereby bringing himself within the line of fire, when his brother "snapped off" a third chamber (which, quite unknown to everybody present, was loaded), and the bullet struck him in the left side of the neck at about three yards' distance. He was unable to sign the deposition owing to the numbness and loss of power in his fingers, but made a feeble cross mark to indicate his assent to it. At 7 A.M. on April 26th he was still perfectly conscious, and conversed with his friends. Priapism was still present. The urine was drawn off by the catheter. Temperature 99°; pulse 105. At 2 P.M. on the same day the pains in the back and arms began to lessen in severity, and with it some further loss of power was noticed in these limbs. The priapism, which had begun to subside about 9 o'clock in the morning, had now become markedly diminished; the patient was, however, more flushed in the face, and was a little less inclined for conversation than he had been. Tem-

perature 102·4°; pulse 138. During the rest of this day (the 26th) and also during the night the symptoms did not materially alter, save that the pains in the hands quite disappeared, and the breathing became almost entirely diaphragmatic; the face was more anxious in expression, and some sordes began to collect about the teeth. The temperature rose to 104·2° and the pulse to 156. The urine was still withdrawn by catheter, the priapism having by this time entirely disappeared. On the 27th, early in the morning, the temperature had risen to 104·2° and the pulse was 160 per minute. Respiration was wholly diaphragmatic (56 to the minute), the face flushed, and the mind slightly wandering. The temperature rose to 105·6° during the next four hours, and the respirations increased to 60 per minute, the mind became much less collected, and some delirium was present; some congestion of both bases of the lung was also noticed at this time. These symptoms steadily progressed during the next four hours, the pulse rising to 180 per minute, but the respiration slowing down to 48 per minute, and finally to 42. A large amount of mucus collected in the air passages during the last few hours of life, and, gradually increasing, insensibility put an end to his life forty-three hours after admission to the hospital.

Post-mortem examination, performed twenty-two hours after death.—Body well nourished; rigor mortis well marked; the aperture of entrance of the bullet was seen four inches above the sternal extremity of the left clavicle, and one inch and a half to the left of the median line of the neck in front, the edges of the wound being ragged, depressed, and discoloured from infiltrated blood and gunpowder; and grains of the latter substance were embedded in the skin around the wound. On removing the skin by an incision along the median line of the front of the neck a little dark extravasated blood was seen, and the left sterno-mastoid muscle was a good deal bruised towards its lower end, and a quantity of dark blood infiltrated into its substance and into the surrounding cellular tissue of the neck. On passing a probe through the bullet wound in the skin, it took a direction backwards and towards the median line, and the muscles and tissues in its track were much bruised and infiltrated with blood. After cleaning away the structures in front and on the left of the spinal column, an irregular jagged wound of entrance was found in the anterior surface of the fourth cervical vertebra, slightly to the left of the middle line of the body of the bone, and on passing a probe into this aperture it took a direction downwards and obliquely to the long axis of the spinal canal, and emerged again at another larger irregular wound close behind the root of the right transverse process of the seventh cervical vertebra. It thus passed diagonally across the spinal column from left to right, and, as might be supposed, it inflicted a severe laceration on the spinal cord, which was found to be greatly torn and bruised in a large part of its circumference corresponding to the track of the bullet. It was not, however, completely divided. The bullet, which was conical in shape and rifled, was found lying loosely embedded in a cavity of deeply infiltrated cellular tissue, immediately behind and in contact with the posterior surface of the third right rib just in front of the angle of that bone. In addition to the bruising of the spinal cord above referred to, the lower nerves of the brachial plexus were found to be contused and much ecchymosed at their points of exit from the inter-vertebral foramina.

Remarks by Mr. WARD COUSINS.—The condition of the patient was hopeless from the first. The probable downward direction of the bullet could be readily made out from the symptoms, and their rapid upper development, together with the paralysis of the thoracic muscles of respiration, was a most striking and significant sign of the severity of the injury to the cord. The immediate vascular turgescence of the penis and its rapid and complete subsidence may be regarded, in spite of many leading opinions to the contrary, as a symptom of great gravity in cases of spinal injury.

PROFESSIONAL SECRETS.—Dr. Grechen, of Luxemburg, against whom a charge has been made of revealing professional secrets concerning his lady patients, has been amerced in a penalty of 500 francs, in the case of one of them. The Judge reduced the fine on the ground that, as particulars of the case were published in the interests of medical science, that fact was an extenuating circumstance. Many similar actions are threatened by other lady patients.

Reviews and Notices of Books.

Fever; its Pathology and Treatment by Antipyretics. Being an Essay which was awarded the Boylston Prize of Harvard University, July, 1890. By HOBART AMORY HARE, M.D., B.Sc., Clinical Professor of Diseases of Children, and Demonstrator of Therapeutics in the University of Pennsylvania, &c. &c. Philadelphia and London: F. A. Davis. 1891.

THIS book consists of an introduction to the pathology and treatment of fever, in which the subject is first of all handled generally; the cause and conditions affecting the rise and decrease of bodily temperature, the pulse in its relation to fever, hyperpyrexia, and the dangers of fever, being all very briefly discussed. This is followed by a consideration of the various remedies known as antipyretics. The drugs passed under review are antipyrin, antifebrin, thallin, phenacetine, and salicylic acid, to which is added a couple of pages on cold bathing, together with a brief practical summary of the conclusions arrived at. The information is varied and full, and the method adopted is to arrange and classify it under the heads of experimental (laboratory) evidence and clinical (therapeutical) evidence.

Some time ago it was much more the fashion than it is at the present time to regard an antipyretic treatment as curative in its effects. Notwithstanding that we may temporarily govern the heat processes by their aid, the disease, as the author remarks, must proceed to recovery or death. Their use may, by quieting the restlessness attributable to the fever or to the nervous disorder produced by the disease, render recovery more easy. Antipyrin has a very limited and secondary value in such diseases as typhoid fever, and it does not appear to control the rapidly upward rise of temperature in sunstroke. Antipyrin is no doubt occasionally very useful in nervous diseases associated with pain, especially in rheumatic and gouty pains, headaches, neuralgia, and migraine. Phenacetine is likewise often very useful as an anti-neuralgic, and acts rapidly. Our readers must consult the work for themselves for all details. The author, as the result of his researches in a large and extensive bibliography and his own experience, says that antipyrin stands first as an antipyretic, with antifebrin next, followed by thallin and phenacetine, preference being given to the latter. As an analgesic, antipyrin still takes the lead, while phenacetine is quite as useful as antifebrin and more safe. Thallin possesses hardly any power. For rheumatism and its attendant fever and pain the salicylates act best. As a rule, marked depression and adynamia contraindicate the use of antipyretic drugs. For widespread application, efficiency, and safety, cold sponging is, *par excellence*, the antipyretic remedy; but even this must be used carefully and with an intelligent idea of its objects and results.

A considerable amount of condensed information is embodied in this volume, and the subjects are, as a whole, discussed judicially and with commendable moderation.

Transactions of the Sanitary Institute, Vol. XI. Congress at Brighton, 1890. London: Ed. Stanford. 1891.

THE Transactions of Congresses of what we may call the second order are necessarily somewhat ephemeral productions, comprising the inevitable laudation of the climate, the antiquities or the progress, as the case may be, of the favoured locality, and the customary contingent of papers characterised more or less by one-sidedness, while authors who really have something new to say prefer as a rule the smaller but select audience, and the critical readers

presented in the meetings and proceedings of the learned societies. We must, however, make a favourable exception in the case of this volume. Two of the local contributions are of more than local interest, Mr. Alderman Hallett's historical and descriptive sketch of the Brighton Water Works being replete with instructions for like circumstances, and Mr. Topley's address on Geology in its relations to Hygiene, though he takes the Weald, on which he is an authority, as his text: the paper is one which might serve as a guide and model to investigators in this field. Dr. Newsholme's paper on School Attendance and Infectious Disease embodies the conclusions of a medical officer of health who is also an able statistician and long conversant with the work of public elementary schools. Professor Roger Smith's paper on Roman, Turkish, and other baths, and Dr. Poore's address on the Living Earth, are rather academic dissertations, for though the vital action of "soil" on organic matter cannot be too strongly insisted on in connexion with sewage disposal and water-supply in large towns, the immediate and direct application of excreta to the land is extremely difficult. Mr. Hooper's paper on the Arrangements of Industrial Block Dwellings is very practical, Mr. Hepworth Collins on the Alleged Injurious Effects of Gasworks contains much interesting chemical information, Dr. Percy Frankland throws some light on the question of Lead in Water, and Mr. Reece's lecture on the Sanitary Aspects of Electric Lighting presents, we need scarcely say, a masterly discussion of the entire subject, alike from the scientific, hygienic, and economic standpoints.

OUR LIBRARY TABLE.

Manual of Surgical Anatomy. By ALFRED W. HUGHES, M.B., C.M., F.R.C.S. Edin., Lecturer on Anatomy, School of Medicine, Edinburgh. With Coloured Plates. Edinburgh: E. and S. Livingstone. 1890.—This little book contains very terse descriptions of the anatomical facts most important to students about to present themselves for their final examination in surgery. Clearness sometimes and elegance of diction often have been sacrificed to brevity. This will no doubt commend the book to those for whom it is specially prepared. The few plates given are extremely diagrammatic, and in those of transverse sections of the limbs the proportionate size of arteries and veins is very badly shown. Now that such sections are so commonly found in museums there would have been no difficulty in having these diagrams really accurate. The text is by far the most important part of the book, and that will no doubt be found very useful.

Text-book of Bacteriology. By CARL FRAENKEL, M.D. Third Edition. Translated and Edited by J. H. LINSLEY, M.D. New York: William Wood and Co. 1891.—Fraenkel's "Grundniss der Bakterienkunde," which has now reached the third edition, is so well known and has been so fully reviewed in these columns that it is scarcely necessary to do more than mention Dr. Linsley's translation which has just been published in New York. Even those who are acquainted with the original work will welcome an English translation, as all but the most accomplished German scholars can think more quickly while reading their own language, and can follow more readily English modes of expression. The work loses nothing in translation, and we can strongly recommend it to those who wish to make themselves well acquainted with the present position of bacteriology and bacteriological methods. We think that Dr. Linsley in making the translation has been wise to discard the lecture style, which, though perfectly appropriate in the original, must have lost much of its individuality in the translation. The changes made are very slight and the translation appears to follow the original with very great fidelity. Some of the expressions used will sound rather odd to English ears, but we suppose they are acceptable to American readers.

Elements of Practical Medicine. By ALFRED H. CARTER, M.D. Lond. Sixth Edition. London: H. K. Lewis. 1891.—That this book is much appreciated by the student is evident from the regularity with which fresh editions make their appearance. It merits its popularity in that, although necessarily condensed in the treatment of a very wide subject, it conveys accurate information, and does not, like so many small works, favour the plan of instruction by tabulation. We consider that such a book as this has a distinct place as an introduction to the study of the more detailed descriptions and discussions of pathological questions to be found in the larger text-books. Moreover, it is thoroughly practical in its aim and sound in therapeutics.

Traité Elémentaire d'Anatomie Médicale du Système Nerveux. Par Ch. FÉRÉ, Médecin de Bicêtre. 2me Édition Paris: Progrès Médical.—M. Féré has taken advantage of the opportunity afforded him by the publication of a second edition of his well-known work to add considerably to its usefulness by making corrections and additions to bring it up to date, and by increasing considerably the number of the illustrations. In its present form it may be looked upon as an excellent account of all that is known of the anatomy of the nervous system. The first edition is so well and so favourably known that it would be superfluous to enter into a detailed criticism of the present edition. It may just be mentioned that the subject is dealt with in two parts, the first comprising an account of the cerebrum, cerebellum, bulb, and spinal cord; while in the second an account is given of the peripheral nerves, both cranial and spinal the last chapter of this section being devoted to the anatomy of the sympathetic. The writing has all the charm and felicity which one expects from M. Féré, the illustrations, without being too elaborate, illustrate the text in a most useful way, and the book is one which most neurologists will probably like to possess in its latest form.

Book of Illustrations to S. Maw, Son, and Thompson's Quarterly Price-Current, Surgeons' Instruments, &c. London: S. Maw, Son, and Thompson, 7 to 12, Aldersgate-street, E.C. 1891.—Messrs. Maw, Son, and Thompson have published a very complete series of illustrations of surgical instruments and apparatus. The instruments are grouped into seventeen separate sections, and are classified according to their uses. The illustrations are very accurate and clear, and the catalogue seems complete and well up to date. Anyone unable to personally select his instruments will find in this volume all the information and help it is possible to give by means of the best illustrations.

THE ROYAL SOCIETY FOR THE PREVENTION OF CRUELTY TO ANIMALS. — Lord Aberdare presided on Saturday at the sixty-seventh annual meeting of this Society. The report submitted, which was adopted, showed that during the past year 243 persons were, through the action of the Society, committed to prison for cruelty to animals, and 5647 were fined. Allusion was made on the use of the bearing rein, and an Anti-bearing-rein League had been organised at Hampstead and Highgate, with the object of inducing owners of draught horses to discontinue the use of bearing reins, which caused in hilly districts much unnecessary suffering. Respecting the dishorning of cattle, Lord Aberdare stated that Mr. Chaplin, the Minister of Agriculture, had intimated in a speech that he would be no party to introducing an Act of Parliament for declaring dishorning of cattle legal.

Analytical Records.

PROFESSOR TUSON'S DISINFECTANTS, LIQUID AND POWDER.

(PROFESSOR TUSON'S DISINFECTANT COMPANY, LIMITED, NEW CHARLTON, KENT.)

ONE thing worthy of approbation in regard to these preparations is that no secret is made of their composition. The composition of the powder strikes us more particularly as an ingenious notion on the part of the inventor, the late Professor Tuson of the Royal Veterinary College. It consists of a mixture of sulphite of lime, sulphate of alumina, and sulphate of zinc. The last body is, of course, well known as an efficient disinfectant and antiseptic, but the first two bodies when moistened decompose one another, and evolve the powerful deodorising and disinfecting gas sulphur dioxide (SO_2), thus: $3\,CaSO_3 + Al_2(SO_4)_3 = 3\,CaSO_4 + Al_2O_3 + SO_2$. We find that the powder gives off gas equal to seven gallons of sulphur dioxide to every pound of the powder. The fluid contains chloride of zinc (a non-volatile antiseptic), and according to our analysis nine times its own volume of sulphur dioxide gas. Experiments have shown that sulphurous acid is one of the most powerful disinfectants and deodorants known, and being a gaseous body it acts as a valuable purifier of vitiated air. The gas is easily obtained in the combustion of common sulphur, but the advantages offered by the employment of preparations of the kind under notice cannot fail to be recognised by those who may require to use this active agent.

HORLICK'S DRY EXTRACT OF MALT.

(HORLICK'S FOOD CO., 39, SNOW-HILL, E.C.)

As a food this preparation, judging from our analysis, may be regarded as of undoubted value, for it contains a high proportion of the nitrogenous principles, as well as soluble phosphates of barley malt. We have obtained, however, only slight evidence of the presence of active diastase. It shows but a feeble action on starch, and in this respect, at any rate, it is inferior to liquid extracts of malt. The powder is well dried, crisp, and possesses a peculiarly excellent flavour of malt. Appended are the results of analysis:—Moisture, 2·62 per cent; nitrogen, 1·87 per cent. (equal to 11·84 per cent. nitrogenous principle); mineral matter (chiefly potassium phosphate), 1·50 per cent. The difference may be taken to consist of maltose and dextrin.

FINEST REFINED TABLE SALT, BIRD-CATCHER BRAND.

(HARTLEPOOL SALT AND BRINE CO., GREATHAM, ENGLAND.)

Though of course not chemically pure, this is one of the purest specimens of table salt we have examined. It is beautifully clean and white, and has without doubt been well-refined. The salt is contained in neat cardboard drums of one and a half to two pounds, provided with a parchment lining which protects the salt from the influence of damp.

FRAME FOOD PORRIDGE.

(THE FRAME FOOD COMPANY, LIMITED, LOMBARD-ROAD, BATTERSEA.)

We have before had occasion to examine Frame Food Extract, the composition of which, we have shown, represents in a concentrated form the nourishing mineral as well as vegetable constituents of wheat. Frame Food Porridge is described as a wheaten powder, with its food value enhanced by the addition of the extract. It contains a goodly proportion of albuminous principles, and cold water extracts from it a notable amount of dextrin. The proportion of mineral matter is not so high as would be expected, the amount, 0·86 per cent., falling below that of good flour, although evidence of the presence of soluble phosphate was very distinct. The preparation makes an agreeable porridge, possessing a strong wheaten flavour, and it does not appear to produce the uncomfortable heating effects which many experience after partaking of ordinary oatmeal.

METEOR MALT BEER (HOFF'S), NON-ALCOHOLIC.

(ENOCH & CO., 29, NEW BRIDGE-STREET.)

This is one of the preparations of interest exhibited at the German Exhibition. It is really a genuine-brewed strong beer, from which the alcohol has been removed by distillation. According to our experiments, the amount of alcohol found in the samples submitted to us was less than one-half per cent.—no more, in fact, than is present in home-brewed ginger beer. On distillation the first portions responded to the very delicate iodoform test. Strong alcohol added to the beer gave an abundant precipitate of dextrine. Those who like beer as a beverage, but who are prevented from drinking it through scruple, may now indulge with easy conscience in this beer, which in composition is practically the same as the ordinary brewed beverage, although habitual drinkers will most probably recognise the absence of the only thing lacking.

TONIC IRON ALE.

(THE TONIC IRON ALE COMPANY, 9, SOUTH-STREET, FINSBURY, E.C.)

There seems no reason to doubt that this preparation is of peculiar therapeutic value, as it contains an organic iron salt in conjunction with genuine hop extractives; but we fear it will be difficult to convince anyone that it is a beverage pleasant to the taste. Analysis confirms the presence of iron as well as the absence of alcohol, at least in any appreciable quantity.

OLEUM EUCALYPT. OLEOSA.

(J. W. DRYSDALE & CO., 8, CREECHURCH-LANE, E.C.)

We have not examined a purer specimen of eucalyptus oil than this. It gives off a delightfully fragrant smell, especially when a few drops are placed in a bowl of water. Evidence in favour of its purity is furnished by our analytical results, which are as follows:—The oil commences to boil at from 170° C. to 175° C., and the specific gravity at 60° F. is 0·924. On evaporation no trace of residue is obtained. It would be difficult, we imagine, to secure an oil that would be better fitted for surgical and general antiseptic purposes than this particularly fine Australian product.

New Inventions.

KROHNE AND SESEMANN'S IMPROVED CHLOROFORM INHALER.

THE principle of the respiratory indicator used with this inhaler, which we figure below, and which was fully described in our issue of April 11th, 1891, has been adapted by the same firm to a cone, and called by them the "Hyderabad Inhaler," since they assert that it fulfils the requirements

laid down by the members of the Hyderabad Chloroform Commission. It consists of an open cone made of wire gauze (A), provided at its truncated apex with the "respiratory indicator" (C)—i.e., a feather which is blown

up in expiration and falls in inspiration. This is protected by a metal cap (D) when the inhaler is not in use. The cone is covered with red flannel, and has a white flannel bag, which is removable, placed within it, and upon this the chloroform is sprinkled through an opening in the cone, B. This bag is open at the small end of the cone. When the cone is placed upon the patient's face the respiratory indicator readily shows the rhythm and force of the respiratory movements, and is unquestionably a useful contrivance. The pendant position of the feather indicator can be adjusted to suit the position of the patient's face by turning the cylinder in the desired direction. We have tried the cone and find it answers very well, and can speak favourably of it for the A.C.E. mixture. Those who like a cone in giving chloroform will find Krohne and Sesemann's a great improvement upon the ordinary one in use. The indicator, provided it is not allowed to take the place of close attention to the patient's condition, is a valuable adjunct, and when understood affords reliable evidence of the activity of the patient's respiration. We say when understood, because it is possible by shaking or pinching in the inhaler to produce movements of the register which might mislead the unwary. This objection, if it be one, is so slight as to fall into insignificance when compared with the undeniable utility of the inhaler.

SULPHUR FUMES APPARATUS.

FROM time to time reference is made in the medical press to this old treatment of diphtheria. The plan usually adopted is to heat an iron shovel, put sulphur on it, and get the patient to inhale the fumes. The disadvantages of this plan are that the nurse gets most of the fumes, and the child, if obstinate and unmanageable, has but a small share of them. Another drawback is that a struggling child might easily be burnt by the hot shovel. In order to obviate all this I have devised a simple apparatus which will be found useful for this treatment. It consists of a stand (A) with a spirit lamp which heats the sulphur in the drawer (B); the fumes pass up the chimney (C), and by means of the tubing, to which a mouthpiece (D) is attached, they are conducted

to the patient. A teaspoonful of sulphur sublimatum is placed in the drawer, and when the fumes begin to appear, at the mouthpiece, it is held near, and a little below the mouth (not over it), because some air space is necessary, as the fumes are acrid and irritating, and should not be inhaled undiluted. The fumes should be inhaled for two or three minutes, the patient inhaling through the mouth and exhaling through the nose. This is to be done every two hours at first, and less frequently later. The eyes should be covered with a handkerchief to prevent the conjunctivæ being irritated. The apparatus has been made for me by Messrs. Arnold and Sons, West Smithfield, London.

Eastbourne. JAMES ADAMS, M.D., F.R.C.S.

THE ASSOCIATION OF FELLOWS OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

A WELL-ATTENDED meeting of the Committee of the Association of Fellows of the Royal College of Surgeons of England was held at 5 P.M. on Wednesday, June 24th, at 36, Grosvenor-street. The secretary, Mr. Percy Dunn, reported that he had issued the circular drawn up by the Committee and sent out postcards to members of the Association, and he had received two resignations from gentlemen officially connected with the College and several new proposals for admission to the Association. The Fellows thus applying were elected members, and the financial position of the Association was discussed. The income and expenditure for the preceding year were nearly equal, amounting to about £23 in both cases. The arrangements for the general meeting having been settled, the meeting terminated.

The annual general meeting of the Association was held on Thursday, June 25th, at the rooms of the Medical Society in Chandos-street. Mr. Pollock, the president, occupied the chair, and was influentially supported. The secretary having read the minutes of the last meeting, the officers and committee of the Association were unanimously re-elected, on the motion of Mr. J. A. McDonagh and Mr. Holmes. The President then gave a *résumé* of the work of the Association during the past year, including the proceedings in reference to the deputation of the Committee of the Association to the Council of the College and the issue of this recent circular of the committee. All that the Association has done has been fully reported and discussed in the columns of THE LANCET. Dr. Collins proposed, and Mr. Morgan seconded, the following resolution, which was carried unanimously: "That the Association of Fellows of the Royal College of Surgeons objects to the acquisition of any new powers by the College in the matter of conferring medical degrees, unless and until the Fellows of the College shall have had an opportunity of expressing their opinion thereon. That copies of this resolution be forwarded to the Lord President of the Council, the Chancellor of the University of London, the Chairman of Convocation of the University of London, and the President of the Royal College of Surgeons." Mr. Holmes, in moving a vote of thanks to the President, touched upon the importance of the Association continuing to press for the concession of separate meetings of Fellows and a common room, as well as the necessity for securing the election into the Council of Fellows who could be relied on to support amendments in the constitution of the College. Mr. Tweedy seconded the resolution, referring to the calm and sustained interest taken by the President in the affairs of the Association. The resolution was carried by acclamation. It was further proposed by Mr. Holmes, and seconded by Mr. Wickham Barnes "that the secretary be instructed to write to the President and Council of the Royal College of Surgeons, reminding them that they have now received an authoritative legal opinion in favour of the course which this Association requested them to take as to summoning meetings of the Fellows separately from the Members, and respectfully begging them for a definite answer on the subject."

MEDICO-PSYCHOLOGICAL ASSOCIATION. — The fiftieth (jubilee) annual meeting of the Association will be held on Thursday, July 23rd, at the City Asylum, Birmingham, under the presidency of Edmund B. Whitcombe, M.R.C.S. Dr. Yellowlees will move: "That, with a view to secure greater uniformity, the examinations for the Association's certificate in medico-psychology shall be conducted on the same system as those for the certificate in nursing; that is to say, that the papers shall be set and valued by the examiners of the Association acting conjointly; that the written examinations shall be held on the same day throughout the country, the sealed questions being opened at the hour of examination; and that the clinical and oral examinations shall be held at any convenient time thereafter, by the examiners for the respective countries, when they have examined and assessed the written papers."

THE LANCET.

LONDON: SATURDAY, JULY 4, 1891.

THE third stage in the necessary proceedings with regard to the creation of a Teaching University in London, with powers to grant degrees in Arts, Science, and Medicine to those students who have spent a substantial period of their educational career in London, has at length arrived. The first stage was closed by the Report of the Royal Commission on April 29th, 1889, when the Commissioners reported that the Charter to give power to confer degrees in Medicine and Surgery asked for by the Royal College of Physicians of London and the Royal College of Surgeons of England ought not to be granted; that the general case for a Teaching University was made out; and that a reasonable time should be allowed to the Senate and Convocation of the University of London to consider whether they would apply for a new Charter, to extend their functions and duties to teaching, and associating with them the University teaching colleges and institutions—in fact, to provide for London what the Scottish Universities provide for their respective cities, in addition to their peculiar work as an Imperial Examining Board. On May 12th, 1891, after several other schemes had been suggested, the Senate of the University of London asked Convocation to join in the application for a new Charter on the basis of a final revised scheme, which took in not only the London teaching colleges and medical schools, but the provincial colleges and the Royal Colleges, and gave to the last-mentioned bodies an enormous control over the curriculum and examination arrangements for the Pass M.B. degree. Convocation rejected the scheme of the Senate by a large and decisive majority, and this concluded the second stage. The third, and we hope the final, stage, in the endeavour to form a Teaching University in London and at the same time to remedy the grievance of the London medical student, to whom a pass degree on fair terms is now unattainable, was reached on May 26th, when the Lord President of the Privy Council wrote to King's and University Colleges, informing them that they must submit a case to the Privy Council on or before June 22nd in support of their claim to found a Teaching University for London under the name of the Albert University of London. Notices were also sent to the petitioners against this proposed university. Applications for delay were made by the Royal Colleges and the medical schools, but these could not be entertained, as a special committee of the Privy Council had been summoned for the 29th ult. to hear counsel for and against the said petition. On Monday last, therefore, Lord CRANBROOK, as Lord President of the Council, aided by Lords SELBORNE, BASING, MONK BRETTON, and SANDFORD, opened the inquiry. Mr. RIGBY, Q.C., stated the case in favour of the petition presented by King's and University Colleges, praying for the grant of a Charter to a Teaching University for London. After a brief account of the history of the movement, he pointed out that none of the bodies oppose in principle, or *in toto*, the scheme now put forward, but that there were numerous suggestions coming from very responsible and important bodies, with the natural result that a great many of them to a large extent neutralised one another. Those bodies in London were the University of London, the Royal Colleges of Physicians and Surgeons, the London Medical Schools (excluding those of King's and University Colleges), the Society of Apothecaries, the Bedford College for Women, and the Incorporated Law Society. Counsel were subsequently heard in behalf of these institutions and on the general question raised. The University of Edinburgh, the Scotch Colleges of Physicians and Surgeons, and the Irish Colleges of Physicians and Surgeons were heard only on any particular grievances affecting themselves, whilst the Annual Committee of Convocation of the University of London was held to have no *locus standi* on the present occasion. A statement from the Birmingham Colleges, a petition from the University College of Wales at Aberystwith, and suggestions from the British Medical Association were also placed before their lordships. Mr. RIGBY then went over the Draft Charter clause by clause, urging that in principle it differed but little from the recommendations of the Royal Commission, although it was drafted before that Report was published. The first difficulty was with the name. Lord SELBORNE urged that the word "London" would create confusion in the degrees, whilst counsel argued that to properly specify its aims and limits [a fifteen miles radius from Somerset House] and to create a proper local feeling in its favour this name was essential. This area comprises a population of more than five million inhabitants. The questions of honorary degrees and reciprocity of residence at other universities were then discussed by the Chairman and Lord SELBORNE and the counsel, and the constitution of the Boards of Studies also took up a long time. It was arranged that the relations of the Faculties, Boards of Studies, and Council should be simplified on the lines of the report of the Royal Commission, so as to create an executive board in the Council, an electoral board in the Faculty, and a consultative board in the Board of Studies. Mr. CUNYNGHAME followed on the same side, urging the retention of the name of "London," and explaining the necessity of a Teaching University in the interests of the secondary schools in London, which experienced great difficulties in obtaining fit teachers, who ought to have both proper training and a degree.

Mr. COZENS HARDY, for the University of London, did not oppose the grant of the Charter as a whole; but he took exception to the name, arguing that the word "London" ought not to appear in any shape in the designation of the proposed University; he also objected to the provision for reciprocity with other Universities as to terms of residence, but this was declared afterwards to include at any rate a substantial residence in London, probably the two years preceding the final examination for a degree; and he argued that the University of London was already in so intimate a relation with the medical schools of London that no new University was necessary. In connexion with this, the counsel made the curious statement that in addition to the London Medical Schools, certificates were received from "I think only

two or three other medical schools in other parts of the kingdom." Subsequently it was shown that certificates were received from all the larger provincial hospitals, from the Scotch and Irish schools, and from several colleges and universities in the colonies. The conclusion of Mr. COZENS HARDY'S address is important. He pointed out that without the assent of Convocation the Senate of the University of London had power to combine with the Royal Colleges to arrange for a qualifying examination under Section 19 of the Medical Act of 1858 and Section 3 of the Medical Act of 1886. Of course this would merely be a further development of the Conjoint Examining Board, and could give neither direct nor indirect representation to the Royal Colleges or medical schools on the Senate of the University of London. It seems, however, to be a note of warning to which attention should be given both by the promoters of the proposed University and the graduates of the University of London. Mr. INGLE JOYCE, following on the same side, pointed out that the difficulty of a recalcitrant Convocation had been got rid of in Ireland by the summary process of dissolving the old Queen's University and founding a new one in its place. Mr. BOMPAS, Q.C., on the part of the Annual Committee of Convocation of the University of London, was adjudged to have no *locus standi*. Sir ARTHUR WATSON, Q.C., pleaded the case for the Royal Colleges, and laid great stress on their historical connexion with medical education in London, reading freely from the evidence given before the Royal Commissioners by the Presidents of the Royal Colleges and the representatives of the London medical schools. He contended that the present proposals of the Royal Colleges to form the Faculty in Medicine differed from those that were rejected by the Royal Commissioners, but Lord SELBORNE pointedly said, "You want to have practically, subject to a veto, the absolute control of the whole thing." Sir ARTHUR WATSON further said that "unless they got in substance what they are asking for—namely, that control in substance of the courses of education and examination—they would most probably say that they would stand out of it altogether." Counsel further put forward the arguments that the Colleges practically are teaching bodies, as well as mere examining bodies, because they control the teaching, and that they represent the medical schools; but to anyone acquainted with the composition of the Comitia of the Royal Colleges of Physicians and of the Council of the Royal College of Surgeons these contentions must appear far-fetched. Mr. MUIR MACKENZIE, who appeared on behalf of the ten medical schools (excluding those of King's and University Colleges), argued that the medical schools should be constituted Colleges of the proposed University (to the formation of which they were favourably disposed), that ten direct representatives should be placed on the Council to represent the ten medical schools, and that the medical schools of St. Bartholomew's, Guy's, St. Thomas's, St. Mary's, and the London Hospital should be at once admitted to the Faculty of Science. The ten direct representatives are asked for on the supposition that the Faculty of Medicine would be formed by the Royal Colleges, who then would return four members, making a total of fourteen medical members on a Council of thirty. The faculty includes all the London medical schools, and the Royal Commission said that the proper mode of representing that faculty would be by having a certain number of men elected by the faculty—that is, by the aggregate of all these teachers and all these schools. Mr. ASQUITH, Q.C., as representing the Society of Apothecaries, was in entire sympathy with the general scheme laid down in the Charter, but urged that if the Royal Colleges were represented on the Council he should also claim a representation, inasmuch as the Royal Colleges had no closer association with teaching than the Society of Apothecaries, and he further said that, with the Council of Legal Education and the Incorporated Law Society, they were all non-teaching bodies, and ought to be placed on the same platform. Sir CHARLES PEARSON, Q.C., on behalf of the University of Edinburgh and of the Scottish Medical Colleges, and Mr. LUMLEY SMITH, Q.C., for the Irish Medical Colleges, were considered to have no *locus standi*, as the Charter in no way affected the present position of those bodies. Mr. CRACKANTHORPE, Q.C., urged the formation of a Faculty of Law and the introduction of a representative of the Incorporated Law Society on the Council, whilst the claims of the Bedford College for Women to immediate admission as a Constituent College in Arts and Science were put forward by Dr. BLAKE ODGERS. After Mr. RIGBY'S reply, it was apparent that the chief difficulties would be found in the name, the constitution of the Boards of Studies, and the representation of Medicine on the Council as affected by the attitude of the Royal Colleges and the Medical Schools. The hearing was adjourned until Monday, July 13th; it being suggested by their Lordships that a consultation should take place between the petitioners and the medical schools and Royal Colleges in relation to the suggested modifications in the Charter, and that the result of such consultation should be forwarded to their Lordships. At the next hearing their Lordships will point out how the proposed Charter should be altered, on which a new Draft Charter will be drawn and submitted to them for their acceptance.

QUITE recently we made some passing allusions to the pleasures and pains of travel, but the subject will bear some further amplification at a season of the year when some variety of travel is being anticipated by so many of our readers. That travel has its pains as well as its pleasures no one will deny, and probably there are not a few so constituted that it may be a question whether, in their case, the pains do not outweigh the pleasures. But after every deduction is made on the score of fatigue, bad weather, sea-sickness, petty worries, novel foreign customs, and disillusion, it will be generally admitted that for the individual who is a moderately good traveller—by which may be understood a person who can undergo a fair amount of fatigue without inconvenience, who is not made ill by a change of diet or a night journey, and who is not rendered miserable by trivial annoyances—travel is one of the greatest of pleasures, as well as one of the best means of education.

In the first place, travel satisfies our natural instinct of curiosity. Some degree of interest in foreign nations and

foreign manners and modes of life is probably inherent in everyone, and this instinct is certainly stimulated by the progress of civilisation. Everyone knows that in several languages the word for "enemy" meant originally simply "stranger," the obvious implication being that in a certain stage of society every stranger is a potential or actual enemy; and there is a certain stage of the intellectual development of the individual in which all foreign ways and manners, everything strikingly dissimilar from what has been customary and familiar, is unwelcome and repellent. But this stage is a very low one, and marks the prejudice of profound ignorance. A little culture soon convinces us that even the most curious foreign customs have their historical explanation and logical justification, and are often the best possible in the special environment in which they have arisen and flourished. With the recognition of this truth we approach the study of other nations with increased tolerance and redoubled interest. We cease to think it a sign of wit or good manners to ridicule everything that is distinctively different from our own national customs. We observe with interest and sympathy the practices and individual characteristics that have arisen under conditions of climate, race, government, and society different from our own. We submit with patience to regulations and restrictions which our own nation has outgrown. We dwell with special pleasure on those numerous points with regard to which other nations have achieved a higher level of excellence than ourselves. We admire the artistic taste, the thrift, the *bonhomie* of the French; the musical genius, the philosophic depth, the scientific thoroughness of the Germans; the frank manners and genuine social equality of the Norseman. When this stage has been reached travel may become an unceasing delight, instead of that record of petty annoyances and crass incapacity to observe and appreciate which is too often the only thing that the British traveller brings home with him. In order that travel may be thus enjoyed and utilised, it is indispensable that the traveller should possess some knowledge of the language and literature of foreign nations, and some intelligent idea of what may be fairly expected to come under his notice.

In the second place, travel affords in a very perfect form the pleasures of novelty. Scenery, language, dress, diet, and a hundred other things serve to awaken the traveller's interest, and to remind him by their novelty that he is in a new world. The *nil admirari* spirit has spread so much in modern times that many travellers think it a point of superior breeding to be surprised at nothing. But this is surely a very mistaken and a very paralysing mental attitude. Far better is it to cultivate a spirit of intelligent curiosity and sympathetic appreciation. The wise traveller will also, as far as possible, not only sink his insular prejudices, but abandon or modify many of his insular habits, and cheerfully accommodate himself to foreign practices. The world, at least the tourist world, is becoming so cosmopolitan, and English customs are now so widely known and so generally catered for, that no very heavy stress is usually put upon the traveller's powers of accommodation to what is novel and unfamiliar. We need hardly stop to point out how valuable, from the medical point of view, is the novelty of travel. In many chronic maladies, especially those of nervous origin, when the mind has got free of old ruts and is filled with fresh and stimulating ideas (and this is most easily and surely achieved by travel), a long and most indispensable step is made towards recovery. The nervous invalid is destroyed by introspection and self-concentration. His own diseased personality gradually comes to fill the whole field of vision until everything assumes a jaundiced hue. To such a person it is the greatest of boons to be compelled to give up the contemplation of self for the contemplation of the vast moving panorama of humanity which a well-planned tour is so capable of affording.

The pains of travel would make a fertile topic for the wit or the satirist. It is as futile to ignore them as it is foolish to exaggerate them. If the tourist cannot brave the terrors of a few hours at sea with moderate equanimity, or if he is prostrated by a night's railway travelling, if French cookery is an abomination to him, if a little unwonted heat or cold seriously incommodes him—then he had better confine his travels within the bounds of Great Britain. That we either create or greatly exaggerate the pains of travel by our own want of common sense is only too true. We strive to put too much into a few weeks of travel. We undertake long and hurried journeys, perhaps in the hottest weather. We plan all-day excursions which allow of no welcome pause and relief from noonday glare. We are always sight-seeing and seldom resting. We affect an interest in many things of which we are really ignorant. *Ne nimium facias*—take things easily—is a good motto for the tourist. If you can heartily admire what you know to be admirable—good; if not, silence and not carping criticism is the most becoming course. A moderate programme, frequent pauses, a determination to adapt himself as far as possible to what is novel and possibly disagreeable, a philosophic composure under trivial annoyances, a sympathetic interest in everything worthy of observation—such rules enhance the pleasures and mitigate the pains of the traveller.

IN considering the nature of the so-called specific infective diseases as revealed by the light of modern research, it is impossible not to be struck by the great limitations that are placed on all our efforts to strike at their root, other than by way of prevention. Nevertheless it must be apparent to the least reflective that if medicine is to advance in the art of therapeutics it should seek continually, not only to prevent disease, but to counteract its effects when it has gained possession of the organism. In the case of the specific diseases, which may now be assumed to be due to the entrance into the body from without of some virus, an assumption warranted by the proved facts of bacteriological research, we are confronted with the problem how we can assist to the best advantage in the expulsion of the morbific agents, or in the neutralisation of their action. Hitherto we have not been in a position to say that anything more can be done than to render such support to the vital forces as will enable the blood and tissues to successfully resist the noxious operations of the

poisonous agencies. For in spite of all that has been written of the value of antiseptics, their application in internal medication is singularly, though not surprisingly, inadequate. Indeed, it can hardly be expected that any drug can be administered with safety which can influence the operation of a subtle and widely diffused virus, which, though varying in intensity, produces its effects on all parts and organs. For a time the human body becomes one vast culture ground for the growth of foreign organisms, and the issue of the case depends on many factors, such as the suitability of soil, the intensity of the generated poisons, and the power of resistance inherent in the individual tissues.

In a recent article M. CUFFER[1] suggestively points out that our hope of really and effectively treating these diseases by specific measures must largely rest upon the ability to recognise them in their earliest stage. This stage is, he maintains, the so-called incubation period, for he holds it to be erroneous and inexact to exclude it from our conception of the disease as a whole. That which is commonly called the "invasion" of a disease is really nothing more than the overt manifestation of the operation of a virus that may have been already working its baneful influence for hours or days or even weeks before that time. Applicable as this reasoning is to the acute infective disorders, it is even more so to such an affection as tuberculosis, in which there is every reason to believe, from both the teachings of clinical experience and those of laboratory experiment, that a considerable interval of time must elapse between the actual invasion of the bacillus and the formation of "tubercles" and the overt signs of tuberculosis. He would term this latent period the "pre-granulic" stage, but it would be quite as accurate to call it "pre-tuberculous." It is suggested from the analogy afforded by PASTEUR'S results in hydrophobia that the subjects of tuberculous infection may possibly be successfully treated in this the first period of infection, when but little can be hoped from any other measures, even by the application of some such method as that of Prof. KOCH, to counteract the ravages of the declared disease. Indeed, the general experience of Prof. KOCH'S treatment by tuberculin has been to show that it is only possible to effect any marked amelioration in the symptoms when cases are treated at the earliest period; and *a fortiori* it might be hoped that, if means could be afforded for the recognition of tuberculous infection before any manifest signs of tuberculosis appeared, a possible means of checking their development might be afforded. As regards tuberculosis, M. CUFFER considers that we have at least two clinical indications of the bacillary invasion. These are *fever* and *anæmia*. Often, he says, long before any manifest signs of tuberculosis, before any cough or other functional derangement occurs, there will be complaint of malaise and a degree of pyrexia which may even lead to a suspicion of typhoid fever; and he compares the slighter evidences of tuberculous infection with those rarer and intensely rapid cases of generalised tuberculosis which are marked by high fever from the onset to the fatal termination. There is nothing improbable in the notion that the invasion of the bacilli of tubercle is first evidenced by the occurrence of fever; but, regarded from the practical point of view, and in view of the admitted difficulty of the recognition of developed tuberculosis in its early stages, it is hard to see how such a conception will aid us much in any line of treatment. To fever he allies the development of anæmia, which, he considers, has a direct relation to the growth of the bacilli, and he further declares that this is associated with enlargement of the spleen, which can be perfectly well recognised. His application of these considerations to practice is based on the doctrine that, in order to combat bacillary invasion, the soil must be modified, and one great element in this is to maintain the healthy nutrition of the body.

From the very first, then, he counsels the adoption of restorative measures, good and sufficient food, and the care of the digestive organs. Since the febrile symptoms are the index of the presence of the microbes in the body, it is useless to rest content with febrifuge remedies. The treatment must be directed against the microbes themselves, and not against the disturbances of which they are the source. Now, since there is reason to believe that the anæmia is due to the directly destructive action on the blood-corpuscles of the bacilli which live at the expense of the oxygen in the corpuscles, M. CUFFER thinks that in gallic acid there is a remedy which from its affinity for oxygen will indirectly operate as a "microbicide." For such a remedy will so modify the soil as to render it inappropriate for the sustenance of the bacilli. It will prevent their growth, and it will do so without exerting any injurious effect on the body itself. But tannin and gallic acid by their astringency may also further prevent the tendency to vascular congestion, which is such a favouring cause of dissemination of tubercle. The adoption of such remedies (with which antipyrin may be combined) is, however, limited to the "pre-granulic" period, and that being so, we fear that it may be long before they can be generally appreciated. Nevertheless, we do not deem M. CUFFER'S theoretical reasonings as matters to be lightly dismissed. They are in perfect accord with the etiological facts so far gleaned as to tuberculosis, and where they fail is not so much in the existence of flaws in argument as in the intrinsic and almost insurmountable difficulties of the subject. It is, as we have often said, extremely difficult to diagnose a developed tuberculosis. It is infinitely more difficult to be sure of the diagnosis of bacillary infection; and yet this is the unknown land to which the steps of future investigators must be directed until it has been thoroughly explored.

[1] Rev. de Méd., June, 1891

THE inquiry into the working of the infirmaries in which the ailments of the inmates of workhouses and other paupers are treated promises to be not the least interesting part of the work of the Select Committee of the House of Lords. The importance of it may be gathered from the fact that there are twenty-four of these infirmaries, and that they contain no less than 12,445 beds, exclusive of some 4000 beds in workhouses. Some of these infirmaries equal in size our largest hospitals. The Marylebone Infirmary contains 740 beds; St. Saviour's Infirmary, East Dulwich, has 780; whereas Guy's Hospital contains 690 beds, and St.

Bartholomew's Hospital 750. These infirmaries are managed on principles essentially different from those on which our great hospitals are managed, and yet it is easy to see that they are becoming more and more an essential part of our hospital system, and are not without risk of being abused, as are our voluntary hospitals. We shall not go at present into much detail as to their general administration. Nor are we at all disposed to be censorious in our view of these great institutions. We can never be unmindful of the fact that it was the exposure of THE LANCET as to the vile treatment of the sick in workhouses which gave rise to Mr. GATHORNE HARDY'S Act of 1867, and under which these infirmaries and the Poor-law dispensaries have grown to such large proportions. Dr. BRIDGES estimates that in the year 1890 30,000 people were admitted into the metropolitan infirmaries, and that 129,339 orders were given to Poor-law dispensary officers for attendance on patients outside. Many questions were put by members of the Committee to the medical superintendents of the infirmaries to ascertain if these establishments were used by unfit persons. The general drift of the replies was that there was no great amount of abuse, but that the word "infirmary" was far less repulsive than the word "workhouse," and that in some institutions there was a distinct effort to suppress the latter name. Dr. SAVILL pointed out to the Committee that sick relief does not disfranchise, but Lord KIMBERLEY very properly urged that, though not disfranchising, such relief might still pauperise—that it tended to bringon the rates a large class of applicants for sick relief who might otherwise pay their own medical expenses. Dr. GROSS of the St. Saviour's Infirmary admitted to Lord THRING that when a man comes and looks round such an infirmary, he is apt to be satisfied with the provision made for his sickness, to conclude that nothing is to be gained by joining a provident club, and that he will not therefore save money to provide for himself. Dr. GROSS was of opinion that there are many cases of men coming into the infirmaries receiving 30s. a week up to the time of some slight accident, too slight for admission into hospitals, and that before the time of these infirmaries they would have remained outside and been attended by a medical man at home. So too with men earning £2 or £3 a week, from whom sometimes the cost of maintenance is recovered. These facts strongly raise the question of the propriety of that provision of the late Reform Bills that medical relief should not disfranchise its recipients.

Another question of great interest to the profession is that of the medical service of these institutions. The evidence of Dr. BRIDGES, Mr. LUNN, Dr. SAVILL, Dr. KNOX, and others is very interesting on these points. We should gather from a cursory study of it that these officers have plenty to do. They have to superintend the whole administration of the workhouse and to be responsible besides for the treatment of hundreds of sick people. It is well known that many of these posts are filled by very able men—men who, by their diligent use of abundant clinical materials, have added materially to our knowledge of disease. It is, moreover, true that a large proportion of the cases treated at these infirmaries are of a chronic nature. Still, there is something unreasonable in the fact that the sickness of an infirmary with nearly 800 sick people should be treated by a medical superintendent with one or two qualified subordinates, while the sickness in a similar institution like the London Hospital shall have a whole army of physicians, surgeons, assistant physicians, assistant surgeons, resident physicians and surgeons, clinical clerks, and the like.

We are pleased to see that the Lords' Committee have gone fairly fully into this question, in its threefold relation to the existing medical officers, to the patients, and to the subject of medical education. The admission of medical students into the infirmaries was not much favoured by Mr. LUNN. He seems to have rather a poor opinion of medical students. He does not credit them with much ardour in the study of cases unless somewhat uncommon or heroic. Moreover, he did not think there was enough work for them to do. On the other hand, Dr. SAVILL thought it desirable to admit students, and considered the cases would be much better investigated with their assistance. Dr. BRIDGES expressed himself as strongly in favour of clinical teaching in infirmaries, both in the interest of the patient and of medical science. Dr. GROSS thought it a great defect in our educational arrangements to waste all the clinical material in infirmaries. It would seem that the opinion of most of the witnesses is in favour of more help in taking records of cases which would be good for students.

One other very important matter has been much urged—that of the need of a larger staff, or of consultations with outsiders. It is difficult to resist the conclusion that with so much administrative and supervising work the medical superintendent can hardly devote sufficient time to his cases, which, however chronic, must still involve much suffering. It seems not unreasonable to suppose, without advocating medical luxuries, that the cases of people who have long years of disease to endure should become somewhat uninteresting to a medical officer who has other multifarious duties, and that an occasional visit from an outside observer or consultant would be refreshing to the patient and stimulating to the much-worked medical superintendent. This was, indeed, generally admitted. Some guardians allow and pay for consultations in infirmaries; others allow them, but will not pay for them. We see no reason why systematic consultations should not be provided for in every infirmary. Why should a poor man in the London Hospital, afflicted with a grave disease, have the benefit, if necessary, of a consultation of the whole staff, and a poor man in a neighbouring infirmary, with perhaps an equally grave disease, be restricted to one opinion, however good, month after month? Dr. BRIDGES and Mr. LUNN thought these consultants should be hospital physicians and surgeons. Certainly the junior members of these staffs would be well fitted for such duties, and they should be paid for them sufficiently, though not extravagantly. At the same time we should leave as a rule the selection of a consultant to the medical superintendents, whose admirable management of these institutions entitles them to the greatest consideration and respect.

THE death, at the age of sixty years, is announced of the Hon. Dr. Beaney, M.D., a leading member of the Melbourne Legislature, who was a native of Canterbury, and a munificent benefactor to its local charities.

Annotations.

"Ne quid nimis."

THE PUBLIC HEALTH (LONDON) BILL.

IT could scarcely be expected that the Public Health (London) Bill would be read a third time in the House of Commons without some modification of the provisions it contained after amendment by the Standing Committee on Law. The metropolitan vestries and district boards are strongly represented in the House of Commons, and have too great an influence over the elections of members of Parliament for their wishes to be entirely disregarded; and these bodies, or rather some of them, have not viewed with satisfaction the constitution of another authority having administrative duties in relation to the subject matter, which has hitherto been entirely in their hands. We do not doubt that a little experience of the new order of things will soon allay any apprehensions which are now felt on this score, and that eventually the advantage of having a body able to consider the wants of the metropolis as a whole will be fully recognised. The alterations which have been made in the Bill are, from the point of view of efficient sanitary administration, somewhat unfortunate, inasmuch as they tend to render permanent those small differences in local government which have been recognised as serving no object and leading to perplexity and failure. Mr. Ritchie hopes to overcome this difficulty by persuading the numerous sanitary authorities to adopt model by-laws which he has promised to prepare, and if he is successful in his efforts there will be less reason for regretting this alteration of the Bill, but the future only can show how far he will attain his object. Notwithstanding this modification the Bill is a good and useful measure. It largely increases the powers of the sanitary authorities, and it enables a central metropolitan authority having jurisdiction over the whole of London to coördinate the experience of each district and ensure that the law is effectually administered. This indeed has been London's greatest want—a want which Mr. Ritchie has clearly recognised, and which he has done his best to supply. We trust, therefore, that in its passage through the House of Lords the Bill will not be further deprived of its useful provisions. It has weathered a severe storm, and, thanks to Mr. Ritchie's careful piloting, is still capable of rendering admirable service to London. We hope therefore to have the satisfaction of seeing the Bill become law with as little delay as possible.

THE MANCHESTER DEATH-RATE.

THE recent census shows that the rate of growth in Greater Manchester during the ten years ending in April last was almost identical with that which had prevailed in the preceding ten years. The result of this is, in the first place, that the Registrar-General's estimate of the present population of the city was all but absolutely correct; and in the second place, that the high death-rates that have been published for the city in recent years turn out to have been accurate and to need no correction. In Salford, however, the over-estimate of the population by the official estimate was so enormous that the recent death-rate in the city has been under-stated by no less than 26 per cent. Thus while the high Manchester rate is proved to have been correctly calculated, the new census figures show that Salford has been living in a "fool's paradise." It is difficult to account for it, but these circumstances appear to have given satisfaction to the correspondent of the Manchester *City News*, who last year set himself the difficult task to prove that the high death-rates in Manchester were "all moonshine." His recent article on the subject in the same paper is so crowded with blunders that it is almost impossible to treat his statements seriously. It may be useful, however, to point out that the effect of using the new estimates of population based upon the recent census numbers has been to raise the London death-rate by 1 per 1000, not by 11 per 1000, and to raise the Salford rate by 5 per 1000, and not by 18 per 1000; while the Manchester rate remains unchanged, and has not "advanced only 8 per 1000." Moreover, it is not true that the London death-rate as given in the comparative table of the Registrar-General's Weekly Return is based upon Greater London, as it is and always has been based upon Inner or Registration London. With regard to the comparison of the death-rates in Manchester and Salford, it may be stated that the mean rate in Manchester, during the ten years 1881–90, calculated upon estimates of population based on the recent census numbers, was 26·6 per 1000, and no less than 5 per 1000 in excess of the mean rate in the twenty-eight towns during the same period. The rate in Salford calculated in the same way was 24·5, and more than 2 per 1000 below the Manchester rate. Compared with the death-rate in the preceding ten years, the rate in Manchester showed a decline of 3 per 1000, equal to 6·8 per cent.; while the decrease in Salford was 3·5 per 1000, and was equal to 12·5 per cent. Thus not only was the corrected mean death-rate in Salford during the ten years 1881–90 very considerably lower than the rate in Manchester, but, compared with the rates that prevailed in the preceding ten years, the reduction in the death-rate was proportionally nearly twice as great in Salford as in Manchester. It should be remembered that the enlarged area of the city of Manchester has been adopted by the Registrar-General and by the local sanitary authority as a basis for its mortality statistics since the beginning of this year. It is too early at present to know what effect this enlargement will have upon the recorded death-rate of the city. It may be noted, however, that in the first quarter of this year, under the influence of the influenza epidemic, the death-rate of Greater Manchester was 28·4 per 1000, which exceeded by 5·4 the mean rate in the aggregate of the twenty-eight large towns.

DANGEROUS PERFORMANCES.

A NATURAL and not always reprehensible interest attaches to the wild beast show. Not only the curiosity of the wonder seeker, but the more educated concern of the naturalist may here derive a harmless satisfaction from close observation of savage animal life. When, however, the same conditions become the occasion of sensational displays the case is altered. In the performances of the professional lion-tamer, for example, we are at once conscious of a great risk encountered, and the question is to what extent is this risk allowable. Occasional so-called accidents have taught the lesson that nothing is more characteristic of the fierce animal nature than its uncertainty. Weeks, months pass away without mishap. Then there comes an unexpected outbreak of ferocity—some effect of weather, it may be, of want of food, or blind beast-passion—soon over, perhaps, but in the meantime irremediably mischievous. The case of a lion-tamer, who was fatally injured a few days ago at Plymouth by one of his performing animals, may be quoted as a recent illustration. The coroner's jury in this case advised the prohibition of such dangerous performances, and most persons will admit the justice of their recommendation in the circumstances. We have again and again protested in the same sense. It must also be remembered, however, that whatever the danger apparently incurred, the measure of real or inherent risk is that which must chiefly operate in directing prohibitory legislation. If an occurrence like the

above be attributable rather to neglect or ignorance of necessary precautions than to its own essentially dangerous character, the end desired may be attained by official regulation of the performance in question. This at least is needful. In dealing, therefore, with such and other like sensational exhibitions we would advocate a practice of stricter inspection and regulation with liberty of prohibition when such measures are neglected, or when they appear inadequate to guarantee the safety of human life. The matter is one which deserves more careful investigation than it has yet received.

THE PREVENTION OF RUST ON SURGICAL NEEDLES.

DR. DAWBARN, in a recent number of the *New York Medical Journal*, points out that dry sterilising of needles at the usual temperature is apt to injure their temper and cause subsequent bending during use; that boiling or steam induces flecks of rust, while glycerine has failed. He suggests keeping the needles in alcohol, the procedure being as follows: the needles are immersed in benzine to remove grease, then after running them through a towel the points are plunged into a piece of cork the size of a pea—to avoid dulling from jolting—and finally, with their corks, are placed in a wide-mouthed, glass-stoppered bottle filled with absolute alcohol. After using the needles pass them through a thick, wet, soapy towel repeatedly, cleanse the eye with a thread, immerse in benzine, and finally replace in the alcohol. The latter substance is an efficient disinfectant, besides being an excellent protector against rust.

STERILISED MILK.

AN interesting discussion took place at the recent meeting of the American Medical Association on the composition and clinical value of sterilised milk.[1] Dr. Henry Koplik of New York treated of the bacteriological aspect of the question. It had been repeatedly shown by different observers that the lactic acid bacterium gained access to milk from without, that it is destroyed by heat, but that a high degree of heat is needed to destroy the spores of the bacteria, which multiply after several days, and produce a second or alkaline fermentation. The best method for sterilising milk, according to Dr. Koplik, is that introduced by Hueppe, in which steam is the active agent. In an ordinary covered tin vessel twenty minutes are sufficient to sterilise milk by steam. Milk will decompose, however, several days after being well steamed, by the action of the bacilli first isolated by Löffler. After exhibiting and describing cultures of the forms of bacteria which may develop in milk after sterilisation, Dr. Koplik formulated the following practical conclusions: That prolonged sterilisation by steam is necessary, and that sterilised milk should not be kept several days, but should be used promptly. Professor Leeds of Hoboken and Dr. Davis of Philadelphia then read a paper on the "Chemistry and Clinical Value of Sterilised Milk." From a chemical examination of different samples of sterilised milk, Professor Leeds concluded that sterilisation destroyed a starch-liquefying ferment normally present in milk. Lactalbumen was partly coagulated, and caseine was rendered less readily digestible by rennet, pepsine, and pancreatine. Butter fat sometimes separated, and the albuminoids in their changed condition hindered the assimilation of fat. Milk sugar was destroyed by long heating. The process most likely to give good results is to render milk feebly alkaline with lime water, then to treat with pancreatine at 155° F. for six minutes; if the milk is not to be used at once, it should be raised to boiling for a moment. Dr. Davis's experience in the Philadelphia Hospital had indicated that while infants fed on sterilised milk and treated by modern methods of intestinal antisepsis were relieved of acute gastro-enteritis or "cholera infantum," yet they were not nourished by milk which had been sterilised. They frequently suffered from obstinate constipation, and their bodies presented after death appearances characteristic of atrophy of the digestive tract. Amongst the succeeding speakers was Dr. J. Lewis Smith of New York, who drew attention to the fact that milk strained through wine-strainers, exposed to the air of infected rooms, and handled by infected hands, is dangerous. Before the use of sterilised milk among asylum children in New York, 100 per cent. (*sic*) under eight months perished, but there had been a considerable improvement since the introduction of sterilised milk. That by boiling many sources of infection are destroyed is undoubted, but whether such milk is still as easily digested, or whether its nutritive value is as great, further investigations must be undertaken to show.

[1] Medical News, May 9th, 1891.

QUARANTINE IN NEW YORK.

IN a report addressed by Dr. W. M. Smith, health officer of the port of New York, to the Commissioners of Quarantine of the State of New York, a number of considerations are adduced which, it is held, make it desirable that the system of quarantine as carried out in the United States should be maintained. Immigration is one of the great problems in so far as the prevention of disease is concerned, and it is well known that, in so far as importation from the Old World is concerned, the Northern States of America are becoming more and more stringent. Indeed, all infectious fevers are quarantinable, and so wide is the definition of the term that control can be exercised over "any disease of a contagious, infectious, or pestilential character, which shall be considered by the health officer dangerous to the public health." The vaccination of all intending immigrants at their ports of departure has been aimed at for some time; but as it has not been entirely successful, it is supplemented by vaccination after embarkation, and this with excellent results. And as an inducement to passengers to submit to the process it appears that on arrival at the quarantine station those who have been vaccinated before exposure to any case of small-pox arising during the voyage are allowed at once to proceed to their destination, others being submitted to the vexation and delay involved in detention. Indeed, all persons landing and not having a certificate of vaccination may be detained until the full incubative period of the disease has elapsed since the last exposure to infection.

INFECTION DUE TO SHAVING.

NOTWITHSTANDING that the subject has recently given rise to some discussion in the daily press, there can be no reasonable doubt as to the causation of parasitic sycosis, and the frequent responsibility of barbers for its propagation. We will not deny that the disease may occasionally arise from accidental contact other than that of infected soap and brush. Its close connexion with these, however, is affirmed by the evidence of a common and persistent sequence of events. We need not dwell upon the tenacity with which it clings to the hair of the face, nor will we examine the methods used by the dermatologist for its destruction. Sanitary cleanliness is here better than any remedy, and the assertion of this important fact is the chief result of the somewhat lengthy newspaper correspondence already mentioned. It has been impressed by different writers in various ways. Thus we are advised to shave ourselves, to avoid the cheap barber, to use precautions with brushes and the like. Perhaps the advice first given would prove the best, but the professional operator is to many persons indispensable. The truest wisdom for oneself in such a case is clearly to use due care

in selecting a barber. Whatever he is not, he must be clean and careful. It should not be forgotten that there are possible safeguards well within the reach of this class of tradesmen which a customer may fairly exact for his own security as part of the common law of shaving. These include the use of perfectly fresh water and soap, or preferably shaving cream as admitting of exclusive use, a clean brush, and a clean razor for each person shaved. We should also advise, as a further but not superfluous precaution, that instruments after washing be dipped in some convenient antiseptic solution. Such measures as these require but little time to carry them out. They are needful in order to ensure immunity from contagion, and the poorest will find them worth a small addition to the barber's fee.

WESTERN MEDICINE IN CHINA.

SQUIRE'S edition of the British Pharmacopœia has lately been translated into Chinese by Dr. Hunter, of the American Presbyterian Mission, who has resided in China for about fifteen years. The work has been published by Dr. Hunter at some considerable cost as a large quarto volume. It contains a preface by his Excellency Li Hung Chang, Viceroy of Chih-li, and Prime Minister of China. The Viceroy's wife some years ago was cured by Dr. M'Kenzie of the London Missionary Society, when her life had been despaired of by native physicians. Feeling his indebtedness to medical missions, the Viceroy built a hospital at Tientsin for the London Missionary Society, and now commends Dr. Hunter's translation to his countrymen's use in a preface. In a recent interview accorded to a deputation of the English Baptist Missionary Society, consisting of the Revs. Richard Glover and T. M. Morris, his Excellency made the most minute inquiries as to the number, location, qualifications, and salaries of medical missionaries in the service of that Society. The salaries he declared quite inadequate, and questioned the possibility of obtaining able men at the price. It was suggested that they came at the prompting of mercy, but his Excellency seemed to doubt the power of mercy to induce men to undertake so much. He further stated that, in his opinion, the Confucianists could save men's souls quite as well as the Christians, but were not so good at saving their bodies; accordingly he hoped that as many medical missionaries as possible would be sent to China. It is right to say here that almost the only knowledge of Western medicine the Chinese have they owe to medical missionaries.

RELATIVE INCREASE OF THE WHITE AND COLOURED POPULATION IN THE UNITED STATES.

THE race question in America is one of absorbing interest from a political point of view, but there is a statistical aspect of the question which has a special interest at the present time from its connexion with census figures. The results of the census in the United States in 1880 appeared to show that an abnormal increase of the coloured population, in what has been called the "black belt" in the United States, had taken place during the preceding ten years; and this abnormal increase was of such a character as to lead to the popular error that the negroes were increasing in the Southern States at a much greater rate than the white population. The United States census office somewhat recently issued a bulletin relating to this subject which acknowledged that the error was a natural one, and arose from the difficulty of ascertaining how much of the increase (of the coloured population) shown by the census in 1880 was real, and how much was due to the omissions of the census in 1870. The superintendent of the United States census has declared that the abnormal growth of the coloured population shown in 1880 was not real, but was due to the imperfect enumeration in the Southern States in 1870. Taking the United States as a whole, it appears that only during the first thirty years of this century did the coloured race increase more rapidly than the white, and that even in the ten years 1870-80, when the enumeration in the Southern States was undoubtedly imperfect, the recorded increase was 38 per cent. among the whites, against 35 per cent. among the negroes. During the ten years 1850-60 the increase of the white population was 32, and of the coloured population only 23 per cent.; while in the ten years ending 1890 the percentage of increase was 25 among the white and only 14 among the coloured population. It is evident that the acknowledged faulty figures in 1870 destroy the value of the percentages of increase in the two intercensal periods 1860-70 and 1870-80. If therefore we calculate the percentages of increase for the thirty years 1860-90, we find that it was 101 among the white and 66 among the coloured population. It is thus evident that the inherent difficulties of the race question in the United States is not being intensified by the more rapid increase of the coloured population that had been inferred from the false census figures in 1870. The United States is a long way behind most European countries in the accuracy of its vital statistics, or this question of the rate of natural increase among the white and coloured population might have been satisfactorily settled from careful examination of the birth-rate and death-rate of the two races. It is very generally known that the birth-rate is much higher among the blacks than among the whites; but it is also beyond question that the death-rate is also much higher among the blacks than the whites, more especially among children. Although these impressions are undoubtedly well founded, trustworthy statistical data for solving the problem are entirely wanting, and we fear that race feeling and prejudice would militate against the possibility of accurate statistics even if the registration of births and deaths were made compulsory in every State, which is very far from being the case. It is very noteworthy that the imperfect census enumeration in 1870 is still, twenty years afterwards, acting as a stumbling-block in the statistical examination of a most interesting political and ethnological problem.

THE PREVENTION OF CRUELTY TO CHILDREN.

THE title of its lately published report, "New Law and Life," describes in a few words the work undertaken and carried out with a large measure of success by the National Society for the Prevention of Cruelty to Children. Any who may not unnaturally have questioned the necessity for the Society's efforts will find in this summary of its proceedings abundant evidence of that necessity. Besides the detection and punishment of many cases of cruelty, some hardly credible in their savage ferocity were it not for the proofs adduced, the Society has interested itself in certain matters of special public importance. Among these may be mentioned the insurance of child life, a much-mixed good, which is justly viewed with suspicion; baby farming, in regard to which the Society has usefully exerted its powers in the notorious case of Reeves and others; the joint liability of parents in charges preferred against their children; and the institution of a boarding-out system for the maintenance of children taken from the custody of cruel parents. A protest against the granting of death certificates in cases where a criminal purpose may reasonably be suspected deserves the attention of medical practitioners. It is satisfactory to learn that the efforts of the Society's agents to elicit facts have been willingly seconded by voluntary information on the part of neighbours in many cases of undoubted cruelty. The agreement existing between these agents and the police has also proved of mutual benefit. Though it has only just completed the second year of its existence, the Society already includes in England, Wales, and Ireland sixty-five

aid committees. Its work up to the present time comprises the examination of 11,690 cases of complaint, of which 10,179 were proved to be true. In all, the welfare of 23,889 children was involved. In 1800 cases legal proceedings were taken which, in 1540, resulted in conviction. It may be remarked that the evidence goes to prove, as the common antecedent of cruelty, not a dearth of means so much as a lazy habit and a laxity of personal morality. The financial statement shows a marked increase in the funds of the Society, but still more ample contributions are called for in order to the wider extension of its efforts. The occasional apathy, and even opposition, of magistrates is complained of; but the perusal of this report ought, in our opinion, to prove to any who may have scruples on the subject the existence among us of not a little really barbarous and criminal inhumanity, which will justify the employment of some rigour in its repression.

CHOLERA IN THE EAST.

CHOLERA is reported to have again broken out at Aleppo and in the surrounding villages. The disease was not officially announced to have ceased in Northern Syria until somewhat late last year, and it is highly probable that the recurrence of the disease is due either to mild cases that have taken place in the interval, or to resuscitation of the poison with the advent of hot weather. The position which Aleppo occupies on the highway to the coast and to Asia Minor generally gives importance to the occurrence. Notwithstanding the large number of pilgrims already congregating in the Hedjaz, the sanitary state of Medina is declared to be satisfactory; but in Mecca a paludal fever is raising the general rate of mortality.

HOSPITALS FOR THE "PELLAGROSI."

PELLAGRA, experience has shown, is not to be kept in check, much less extinguished, by the "economic kitchens" and "coöperative bakeries" which have of late years been brought to bear upon it in Upper Italy. The peasantry, among whom the disease most frequently occurs, have never taken kindly to these institutions, the working of which has been far too casual and irregular to be of real service. In many districts of Lombardy the "cucina economica" has ceased to exist, while the "forno coöperativo," after an equally fitful career of usefulness, has also had to be closed, unable either of them to cope with the ineradicable routine, not to say prejudices, of the rural labouring class. In the towns, on the other hand, these institutions, having a more intelligent, less scattered, population to deal with, have been fairly successful; but it is still as perplexing a problem as ever how to reach the *adscripti glebæ* and provide them with the wholesome, steady food-supply which alone can keep them in health. A novel experiment has lately been tried in some pellagra-visited regions of Brescia and Bergamo—viz., "Locande Gratuite," free quarters as we should call them, established for the housing and feeding of the victims in the early stage of the malady, when it may be rooted out of the system and the patient be accustomed to the diet in which he has found his safeguard. The inmates of these houses may still pursue their work, but all the while they are under surveillance, and are kept on sound rations, in which butcher's meat is largely represented, while every other adjunct of a healthy life, pure drinking-water, fresh air within doors, and personal cleanliness, are rigorously maintained. The subjects selected for this treatment are the young adults of both sexes in whom the disease has just declared itself, and in whom it is thoroughly got rid of before they are turned out again to independent life, to marry and beget families. Matrimony in pellagrous subjects has been found to be the most prolific cause of the spread of the disease; children born of such parents bringing into the world the physical conditions under which the unsound and insufficient food allotted them produces its disastrous results with cumulative effect. We learn from a Milanese correspondent that the Locanda Gratuita has already been so successful in Upper Italy that the institution is being rapidly multiplied throughout the pellagrous communities, and the Communal authorities are already so zealous in the undertaking that before the century is out there will scarcely be a district without its Locanda Gratuita. Count Codronchi—a name well known in Italy for its association with good works—has borne emphatic testimony to the salutary results already reaped from the institution—in some cases a few months having sufficed to restore the inmates to society, thoroughly rehabilitated in health and constitution. The sense of the Italian public has at last been aroused to the opportunity it possesses of stamping out the malady, and, with such support behind it, the efforts of Government, whether central or local, cannot long be baulked of their legitimate reward.

UNIVERSITY COLLEGE, LONDON.

MR. JOHN ERIC ERICHSEN, President of University College, Gower street, received a large gathering at a conversazione in the institution on June 30th, 1891. The University Musical Society performed Barnett's "Ancient Mariner" in the Botanical Theatre. The exhibits were numerous and most interesting. They consisted of works of art, living animals, aquatic plants, and a lovely collection of roses by Messrs. Wm. Paul and Son of Cheshunt. Professor Oliver exhibited various objects of botanical interest. Much attention was paid to the collection of pictures, many by famous artists, and to the permanent gallery of the college, containing Miss Denman's bequest of sculpture by Flaxman. The Engineering Society arranged a special exhibit of high mechanical interest, while ladies paid great attention to the collection of roses and the works of art, ancient and modern, exposed in the museum. No small number seemed to find the cool terrace of the façade and the strains of the Coldstream Guards highly attractive.

EUPHORINE AS A MICROBICIDE.

WHETHER and to what extent euphorine acts as a microbicide and antiseptic is a question which came on for discussion at a recent sitting of the Reale Accademia di Medicina of Turin. In January last Dr. Peroni, director at the Policlinico of the section of cutaneous and venereal maladies, had introduced to the notice of the Academy the virtues of euphorine in the ulcerous manifestations of syphilitic affections; and, in the interval, he had, with the help of his assistant Dr. Bovero, put his anticipations to the test of clinical observation. The results, he found, were highly encouraging. Employed in powder, in pomade, and in alcoholic solution, euphorine had proved successful in fifty-four cases of venereal ulcer, in twenty-seven cases of syphilis of the mucous membranes, in four cases of balanoposthitis, in several cases of furfura of the head with consecutive alopecia, in two cases of blennorrhagia, and in one of tuberculosis of the skin. The antiseptic value of euphorine had, indeed, been denied by Dr. Monari of Bologna, but, in the discussion that followed the reading of Dr. Peroni's paper, it was shown that the Bolognese physician's results were unscientifically obtained, his experiments depending on conditions in the culture-tubes which differed entirely from those in the living tissue—so much so, in fact, that no definite conclusion could legitimately be drawn from those experiments, at variance as they were, both in method and in result, with the rigidly scientific experiments carried out in the Turin laboratory by Drs. Giacosa and Belfanti, tested and confirmed, from the thera-

peutic side, by Drs. Peroni, Bovero, and Oliva. An interesting point was brought out at the instance of Dr. Foà, who started the question as to whether euphorine acts by modifying the micro-organism or by modifying the soil in which it develops. The answer to this inquiry was that of Dr. Giacosa, supported by the experiments of Dr. Belfanti. Euphorine, it would appear, exerts its specific action directly on the micro-organism; but in the tissues—in other words, in clinical cases—this action is notably increased by the circumstance that euphorine decomposes, and the decomposition, in part, generates phenic acid.

RETENTION OF AN ALMOST FULL-TERM PLACENTA FOR TWO MONTHS.

IN the *Indian Medical Record* of last month the editor, Dr. James R. Wallace, relates a very interesting case of retention of a placenta for nearly two months without any unfavourable symptoms supervening. The facts are peculiar. He was called to attend a woman during her second delivery, which had come on at the eighth month. He found the head low down in the pelvis, and the expulsion of the child terminated naturally. While waiting for the uterine contractions to expel the placenta he received an urgent message, and left the midwife to see to the after-birth. He did not visit the patient again, but about two months afterwards he was called, to find her in great pain. There was some hæmorrhage, and on examination the uterus was as large as a child's head. The os was somewhat dilated, allowing two fingers to pass which touched a fibrous mass, found to be the placenta. On inquiry he ascertained that the midwife, finding that the after-birth did not come away within an hour, concluded that probably "everything had come away," and forthwith applied a bandage. The discharge ceased in about ten or twelve days, and the woman got up, going about her work without any discomfort, pain, or sense of weight. On applying compression over the fundus uteri, the placenta, quite fresh in appearance and without fetor, was expelled.

PUBLIC HEALTH AND LIBERTY.

THE leading article which we published in last week's issue under the above heading has called forth several communications of somewhat considerable length, but that which is signed by the President of the Right and Liberty Defence League may be regarded as sufficiently embodying the several views set forth. Mr. J. P. Yeatman, the president of that body, objects to our article as unfair and misleading, and he begins by referring to interferences with right and liberty, which are concerned with dancing, public music, and a number of questions with which our comments had absolutely no concern. And, even where considerations of public health are in question, he does not, we think, sufficiently apprehend the fact that a "manifesto," issued "by order," and dealing with general principles, can hardly be limited in its application to one single borough where certain offences against right and liberty are alleged to be in operation. Approaching the subject with which we more especially dealt—namely, as Mr. Yeatman puts it, "the infamous mode of spending the rate-payer's money.... in the establishment of epidemic hospitals"—he convinces us more than ever that the views we expressed are those which should be upheld if the best interests of the general public, as contrasted with the "liberty" of the individual, are really aimed at. Besides which Mr. Yeatman fails to apprehend the true bearing of his own contentions. He alleges that, because the town he refers to can no longer "get up epidemics," an isolation hospital is not needed; but he altogether forgets that one of the most potent means by which that very absence of epidemics has been secured has been the removal to the authority's hospital of first attacks of infectious disease which have come to knowledge; and that it was the existence of an epidemic in years past that led to the necessity of providing a hospital. It is always difficult to differentiate between the effects of a number of measures operating simultaneously; but in the borough in question the annual death-rate from the principal zymotic diseases for some ten years before the provision of an isolation hospital was over 4·0 per 1000 living, and since that date it has been reduced to a mean of about 2·5. Then Mr. Yeatman scoffs at the "nonsense" of safeguards contained in the Public Health Act as to compulsory removal to hospital, and cites the borough from which the manifesto issued as a place where these are disregarded. But the safeguards exist all the same, they serve as safeguards elsewhere, and if he chooses to educate people as to their statutory rights, no one can complain. When, however, Mr. Yeatman claims the right of people to carry the infectious dead from isolation-hospitals back to the very houses from which they were removed in order to prevent the spread of infection, we must contend that the right of the community to the benefit of protection from the risk involved is one to which the desire of the individual must and ought to give way. Mr. Yeatman maintains, in conclusion, that he has no wish "to prevent the strong arm of the law from making prisoners of those affected with disease who are without means to combat it." The law as to isolation is limited by this very condition, but the whole burden of the manifesto, in so far as public health is concerned, is one of opposition to this law, and, above all, to the law as amended last year.

DURHAM UNIVERSITY MEDICAL GRADUATES' ASSOCIATION.

THE annual meeting of this flourishing Association was held at the Café Royal, London, on June 26th, when the following officers were elected for the year 1891-2:—President: Dr. Milson. Vice-Presidents: Drs. Mantle and Callingworth. Council: Professor Philipson, Drs. Arnison, Benington, Carter, Drummond, Goldsmith, Macdonald, Openshaw, Powell, Slater, Walker, and Wilson. Secretaries: Drs. Beatley and Robinson. In the evening the members dined together. In giving the toast of "The Durham University Medical Graduates' Association," the President stated that it now had nearly 200 members, and that thirty-nine new members had that day been elected. He stated that nearly all the recommendations sent up from the Association had been adopted by the Senate of the University of Durham, and he dwelt specially upon the fact that valuable and lasting friendships were made through the existence of the Association. A very pleasant evening was spent, the toasts being interspersed with songs. A principal feature of the evening was a speech by Professor Philipson of Newcastle, in response to the toast of "The University of Durham."

ARSENIC AS A DOMESTIC POISON.

DR. PUTNAM of Boston, in a paper in the *Chicago Journal*, emphasises the frequency with which arsenic must be absorbed under what are supposed to be ordinary healthy conditions. He also draws attention to the dangers attending its medicinal use, and the occasional onset of sudden and severe, even fatal, effects in the course of such administration. As to its absorption under domestic conditions, it is evident that examination of the urine will furnish important evidence, and that this is the case is confirmed by the facts adduced by Dr. Putnam. He states that in a careful analysis made by a competent chemist of 150 specimens of urine taken from patients, most of them presenting certain obscure symptoms, but not such as would have

justified the diagnosis of arsenical poisoning, arsenic was found in more than 30 per cent. in quantities varying from a trace to upwards of 0·05 milligramme to the litre. About half the patients were private and half hospital, and, of the latter, several were selected as showing no arsenical symptoms. The conclusions which Dr. Putnam draws from these facts are—firstly, that the community is exposed to arsenical contamination on a very large scale, and that the occasional occurrence of accidental poisoning, due perhaps to special susceptibility, unusual exposure, failure of elimination, &c., need occasion no surprise; and, secondly, that the mere finding of arsenic in the urine in a doubtful case does not prove the symptoms to be caused by arsenic. Arsenical paralysis is now well recognised as due to a neuritis, and such cases as Dr. Putnam points out are not uncommonly the result of the medicinal administration of arsenic. It has also been pointed out that such a condition may be due to arsenic absorbed unconsciously under "domestic" conditions. One case is recorded by the author himself in which severe symptoms of arsenical poisoning, accompanied by motor and sensory disturbances, evidently the results of neuritis, persisted for months, but afterwards passed away. The symptoms came on soon after the patient had occupied some rooms, which were found to be papered with a highly arsenical paper, and improvement commenced after the patient's removal from them. The facts adduced are of the greatest importance, and it is to be hoped that fresh attention will be directed to a danger of which, we fear, the full extent is not yet adequately recognised.

AN APPEAL FOR MEDICAL MISSIONARIES.

AN urgent appeal to medical students to consider the needs of heathen countries, where educated medical men are either totally wanting or few and far between, has just been issued by some of the medical missionaries connected with the Church Missionary Society, which, like most other societies of the kind, seems to be finding medical missionaries so valuable—so indispensable, indeed, that it is desirous of augmenting the number, if only suitable men come forward. There is little doubt that, from the professional point of view alone, missionary work presents great attractions. The late Dr. Elmslie used to say when talking to students during his furlough: "My dear fellow, work at home is mere 'nibbling at practice' compared to what you get abroad"; and if he could say so twenty years ago when he was surrounded by political and other difficulties, when he had no hospital, and when patients coming to see him had sometimes to do so by stealth or brave the risk of being fined or imprisoned for their temerity, how much more forcibly might the same expression be used by those who have now the charge of the Kashmir station, Messrs. A. and E. Neve. These gentlemen, as was mentioned in a recent issue of THE LANCET, performed between them last year over 3000 operations, 759 of which were of a serious character. At the present time the Society referred to, whose headquarters are in Salisbury-square, Fleet-street, is anxious to find medical missionaries for the Indian frontier, for Kafiristan and Chinese Turkestan, for Arabia, Persia, Palestine, the Niger, East Africa, and for both Central and Southern China.

EARL SPENCER AT THE MIDDLESEX HOSPITAL.

THE annual distribution of prizes at the Middlesex Hospital Medical School (which has hitherto been held at the opening of the winter session) took place on Tuesday, the 30th ult. The prizes were distributed by Earl Spencer, K.G., who was accompanied by the Countess Spencer, and by Lord Sandhurst, the chairman of the weekly board of the hospital. There was a full attendance of the members of the medical and surgical staff, and the proceedings throughout were characterised by great cordiality and enthusiasm. The dean, Mr. Pearce Gould, read his annual report alluding to the distinctions gained by pupils of the school, and stating that during the year 129 students had joined the school, bringing the total number up to 360. Earl Spencer gave a short address after the distribution, in which he commented on the great services rendered to the community by members of the medical profession, and particularly instanced the improvements in sanitation and dwellings which are so largely owing to them. He referred also to the great improvements seen of late in the administration of hospitals, the care of the sick in workhouses, and the enormous advances made in sick nursing. He concluded by hoping that the medical schools would continue to work on independent lines, and that great success would crown their efforts. On the motion of Mr. Hulke, F.R.S., senior surgeon, seconded by Dr. Cayley, senior physician, a vote of thanks to Earl Spencer for presiding was carried by acclamation. We publish elsewhere a list of the prize-winners.

THE CONTROL OF PULMONARY TUBERCULOSIS.

IN a final official report on the use of Koch's lymph in cases of tuberculosis of the lung, Dr. H. D. Geddings, of the United States Marine Hospital Bureau, states as follows: 1. That tuberculin, or Koch's remedy for tuberculosis, is a potent remedy, and one which should be administered with caution and under close and careful observation. It is a remedy which should only be used in institutions where its effects can be closely and constantly watched. 2. That in the limited number of cases which come under observation in the incipient stages of the disease it is beneficial, provided that the disease is not excessive, that softening and breaking down of the tissue has not taken place, or the patient's vital forces are not exhausted by long-continued hectic or by disturbances of digestion and the alimentary canal. 3. That its results in tubercle of the larynx are very variable, and its use liable to produce the most distressing and alarming symptoms. 4. That, in cases where softening has taken place, or the patient is exhausted by any or all of the causes named above, a fatal issue is hastened more or less rapidly by the exhibition of the remedy. 5. That in the hæmorrhagic cases the use of tuberculin is prejudicial, and certainly productive of harm, and that most rapidly and violently. And, having regard to these conclusions, he holds that the remedy is of limited applicability, and that while the future may have for it an important sphere within the limits formulated, its general results must be regarded as disappointing to physician and patient.

THE EXHUMATION CASE AT LIVERPOOL.

ON June 19th Dr. Stevenson of Guy's Hospital and Mr. George Stoker arrived in Liverpool for the purpose of exhuming and examining the body of Mr. James McHenry, who died at his late residence, Hope Lodge, Kensington, on May 26th, aged seventy-three, and whose body was interred in St. James's Cemetery, Liverpool, on June 1st. With the assistance of Mr. Lowndes, surgeon to the Liverpool police, Mr. Irvine, an experienced member of the local detective police, and the clerk of the cemetery, arrangements were made that day for the exhumation of the coffin in that evening, and its deposit in a part of the cemetery suitable for its opening and the examination of the body next morning. The coffin was opened at an early hour on June 20th. This took upwards of half an hour, the body being enclosed in a triple coffin of shell, lead, and oak, the lead being very strongly adherent to the lid of the shell. The body was identified by Mr. Stoker, a personal friend

and former medical attendant of the deceased, by Mr. Boyd, his secretary, and by Mr. Bird, clerk of St. James's Cemetery. It was fairly well preserved, the face particularly so. The post-mortem examination then took place, the abdominal and other viscera being placed in glass jars, sealed, and removed by Dr. Stevenson for analysis. The orders from the Home Secretary and Treasury enjoined the strictest secrecy upon all those to whom was entrusted the exhumation. How well this was observed may be judged from the circumstance that nothing was known until the 30th ult., ten days after, when sensational paragraphs appeared in the London and provincial papers containing statements as incorrect as sensational paragraphs generally are. It was hoped that nothing would have been divulged until after the completion of Dr. Stevenson's analysis, which cannot be for some time yet. Till then it would be well to refrain from further comment.

CANITIES UNGUIUM.

UNDER this title Professor Giovannini has recently communicated to the Reale Accademia di Medicina of Turin a singular case of altered colouring of the finger- and toe-nails. His patient, a young man of twenty-nine years of age, presented the unique spectacle of having all the nails of his body, throughout their whole extent, deprived of their natural tint, which was replaced by a "white opacity" (*bianco-opacità*). They began to lose their colour about the twelfth year, during convalescence from an ileo-typhoid illness, and the alteration was maintained with progressively increasing intensity till they had assumed the aspect they now present. Under the microscope they were found to contain, enclosed in their tissue, an abnormal proportion of air, and this Dr. Giovannini gives as the explanation of their "white opaque" colouring. This cannot, he thinks, be a case of common leucopathia, as "the affection pervades the entire lamina of the nail, and, besides, is persistent." That the phenomenon should be restricted to the nail, without extension to the hair and skin, is certainly curious.

INSTRUCTION IN MENTAL PHYSIOLOGY.

A FEW years ago the University of London decided to substitute the subject of "Mental Physiology, especially in its relation to Mental Disorder," for that of Logic and Moral Philosophy hitherto required of candidates for the M.D. and M.S. degrees. But so far as we know there have been few attempts to organise instruction in this subject, and we are glad to note that by permission of the governors of Bethlem Royal Hospital Dr. Savage will give a course of demonstrations at that institution, and one lecture (to be given at Guy's Hospital) a week during the months of October, November, and a part of December, for the express purpose of meeting the requirements of candidates for this examination.

TACHYCARDIA AT THE MENOPAUSE.

AMONGST the many symptoms which are complained of by women at about the time of the menopause, those referred to the circulatory system have a prominent place. Kisch (*Wiener Medicinische Presse*) has made some observations on this subject, and has recorded twenty-eight cases of tachycardia. At the time of the menopause, but generally before menstruation has entirely ceased, women thus affected suffer from frequent attacks of palpitation, the cause of which is frequently not to be discovered. Other symptoms often accompany the excited action of the heart. Thus there may be a sense of anxiety and oppression, fulness of the head, flushing, arterial pulsation, headache, ringing in the ears, dimness of vision, vertigo, and, even in extreme cases, loss of consciousness. The pulse becomes strong, regular, and of full volume, and may reach 120, 150, or more per minute. Sphygmographic tracings show a large wave with a sudden rapid line of ascent, and an equally sudden and abrupt descent which almost reaches the base line before the occurrence of the secondary elevation, which is also well marked. The cardiac sounds are clear and accentuated. There is sometimes transitory redness of the face, neck, and upper part of the chest, accompanied with a sense of burning. These attacks may occur several times daily, or may be completely absent for awhile. Their duration varies from a few minutes to a quarter of an hour. There is marked bodily and mental restlessness, sometimes approaching hysterical violence. Kisch observed that in most of his cases there were evidences of plethora; the blood was found to contain a high percentage of hæmoglobin. Shortness of breath was not noticed. Any manifestions of stasis were rare; thus œdema of the extremities only occurred in exceptional cases. No albumen could be detected in the urine. The attacks were very alarming to the patient, but were at no time dangerous. They lasted over periods varying from a few weeks to over two years. No injurious sequelæ followed. The treatment consisted of systematic and gentle purgation, together with careful regulation of the diet and general hygiene. Change of air, especially to a mountainous district, often produced great amelioration of the symptoms. If the patients became sleepless or extremely nervous, bromides in small doses were of service. Kisch ascribed the symptoms to changes in the ovaries at the climacteric period.

THE BACTERIOLOGICAL SECTION OF THE INTERNATIONAL CONGRESS OF HYGIENE.

WE have received the programme of the Section of Bacteriology at the forthcoming Seventh International Congress of Hygiene and Dermography. It is remarkably full, and the names of intending speakers are very numerous. The first meeting on Tuesday, Aug. 11th, will open with an address by the President of the Section, Sir Joseph Lister, and the subjects set down for this day include the Etiology of Malaria, the Bacteriology of Asiatic Cholera, the Bacteriology of Vaccine Lymph, Bacterial Necrosis of the Liver, the Morphology of Actinomyces, and Hæmorrhagic Infection. On the 12th discussions will take place on Immunity, its Natural Occurrence and Artificial Production; on the 13th, one on Tuberculosis in Man and Animals. These debates, which will be shared in by many eminent authorities, are likely to prove of the greatest interest. On the 14th papers will be read on Disinfection; on the Bacteriological Examination of Air, Soil, and Water; on the Food and Air Passages in relation to Infection; besides papers on Psorospermosis, Cancer as an Infective Disease, and Fermentation. The secretaries of the Section are Dr. W. Hunter, Dr. Armand Ruffer, and Dr. C. S. Sherrington.

THE Italian Board of Health announces a peculiarly virulent outbreak of scarlatina maligna at Ferrara. It has assumed epidemic proportions, and the mortality—chiefly among the young, and due mainly to throat and lung complications—has caused the infant schools and other educational institutions to be closed.

WE regret to have to announce the sudden death, which took place on Tuesday last, of Charles Edward Sheppard, M.D. Lond., F.R.C.S. Eng., second chloroformist to Middlesex Hospital, anæsthetist to the National Orthopædic Hospital, and to the Dental School at Guy's Hospital.

Pharmacology and Therapeutics.

ARSENIC IN THE TREATMENT OF WARTS.

DR. PAUL MÜLLER, of Hamburg, writing in the *Allgemeine Medicinische Central-Zeitung*, "cannot sufficiently recommend" the internal use of arsenic in the treatment of warts on the hands. He has employed it for more than two years and always found the warts disappear within three weeks. Another practitioner, Dr. Pullin, who seems to have used arsenic for the same purpose somewhat longer, says that he has known it cure warts in eight days. The dose ordered by Dr. Müller is only at the beginning two drops of liquor arsenicalis three times a day for adults, and a quarter of a drop for children. These quantities are gradually increased.

THE THERAPEUTICS OF EUPHORINE.

Euphorine, or phenylurethan, which was discovered by Sansoni, is a white crystalline powder with a slight aromatic smell, and readily soluble in wine, which forms a convenient medium for its administration. Sansoni prescribed it in cases where antipyretic, antiseptic, antirheumatic, or analgesic action was required, and stated that it was free from any objectionable action, such as occasionally follows antipyrin, antifebrin, phenacetin, salicylate of soda, and other drugs of a similar class. A number of recent observations have been made, especially on rheumatic cases, in Professor Stiller's wards in the Jewish hospital in Pesth. In three cases of supra-orbital neuralgia, and in three cases of sciatica, a cure was rapidly effected, a case of chronic nervous headache was decidedly improved, two cases of rheumatic fever were cured, but in another which was complicated with endocarditis no improvement was obtained, though here salicylate of soda was more successful; in nine cases of chronic articular rheumatism good results of a more or less permanent character were obtained; in three cases of muscular rheumatism a rapid cure resulted; and, lastly, in six cases of habitual hemicrania seen in private practice, the remedy produced an almost magical effect. The doses employed were from three to six grains, and were repeated from three to five times a day.

CANTHARIDES IN CANCER.

More than twenty years ago it was reported that the Russian peasants were in the habit of using some kind of beetle as a remedy for cancer. Since that time some observations have been made which would appear to point to the possibility of cantharides being of some use for this purpose. In 1860 Dr. Wilms excised the left breast for a tumour of the size of a small walnut, which was shown by the microscope to be a reticular carcinoma. It returned, and was again excised a year after the first operation. A mixture of tincture of cantharides and camphorated wine in mucilage was now prescribed, and was continued for three months. The patient, who was a widow at the time, afterwards married again, and gave birth to two children. She is still alive, and there has been no recurrence. Again, in 1880, a somewhat extensive cancer of the breast was operated on in the Augusta Hospital, after which the patient was treated with cantharides, and was known to have had no return of the tumour six years later; indeed, she is believed to be alive and well at the present time. Once more, in 1879, a stricture of the œsophagus, evidently of a carcinomatous nature, developed somewhat rapidly in a female patient; she was treated with cantharides, and a decided improvement took place, so that she was able to swallow pieces of food if they were well masticated. She is alive still, but feels, however, some inconvenience from the stricture, and at times is obliged to have recourse to the cantharides. The above interesting facts are published by Dr. Wolfert in the *Berlin. Klin. Wochenschrift*.

PRESENTATIONS.—Mr. A. N. Davis, L.R.C.P. L.R.C.S. Edin., on his resigning the resident medical officership of the County Asylum, Forston, Dorchester, having been appointed medical superintendent of the new asylum for Plymouth, near Ivybridge, has been presented by the officers and staff of the former asylum with a handsome clock, as a token of esteem.—Mr. Ringwood, L.R.C.P.I. &c., of Kells, has been presented with a silver inkstand and pair of silver candlesticks by the members of his ambulance class.

REPORT OF THE LANCET
Special Sanitary Commission
ON
SANITATION AT SHEFFIELD.

PART I.

THOUGH no connexion has yet been established between the prevalence of influenza and the sanitary condition of any particular place, the cause of sanitary reform may gather renewed strength from the panic occasioned at Sheffield through the alarming death-rate during the influenza epidemic. This death-rate reached the extraordinarily high figure of 70 per 1000, and not a few persons came to the conclusion that Sheffield must be in an exceptionally insanitary condition. But on inquiry it was soon ascertained that the prevalence of influenza seemed to be quite independent of sanitary considerations. Persons living in exceedingly well drained houses in the suburbs, where they enjoyed good air, good ventilation, and every comfort, were quite as susceptible to the epidemic as the inhabitants of the poorest, most overcrowded, and insanitary slums. Indeed, not a few medical practitioners expressed the opinion that, if any difference could be noted, the influenza singled out in preference those who were in good circumstances and lived in wholesome quarters. Perhaps, however, this opinion arose from the evident fact that the latter class of patients were more likely to call in medical assistance. The death-rate also among those who suffered was not high, the fact being so many persons were attacked that it seems as if almost every inhabitant of Sheffield suffered more or less from the prevailing epidemic.

Though there may be no connexion between this epidemic and the sanitary state of the town, it is nevertheless certain that Sheffield is a very unhealthy town, and its zymotic death-rate is exceptionally high. This is more important, and in the long run more fatal in its consequences, than the high death-rate from influenza, which, after all, only lasted for a few weeks. We must further hasten to add that the death-rate has now returned to the normal figure; that there is no more reason to avoid Sheffield to-day than there was before the advent of the influenza. It is necessary to make this statement, as the trade and industry of the town have suffered considerably; the usual purchasers for Sheffield cutlery &c. fearing to visit a place where the death-rate was so high. There is now, however, no reason for entertaining such fears; but while we hope that the commercial prosperity of Sheffield will soon recover from this momentary check, there remain, nevertheless, very grave and urgent sanitary grievances which must be dealt with at once and energetically. There can be no doubt that both the administration and the inhabitants of the town are backward in questions relating to sanitation. This is due to a combination of special local circumstances, which, though perhaps affording some sort of excuse for the present state of things, in no wise mitigates the evils that result. The nature of the staple industry of Sheffield has much to do with the insanitary condition of the town; and this quite apart from the dangers inherent to the industry itself. The principal feature of Sheffield is the enormous number of "little masters" and of workmen "occupiers" in factories. They constitute one of the main impediments to sanitary reform. The cutlery trade differs from most of the other great industries of this country, in so far as it does not need the establishment of great factories. There are, on the contrary, any number of "little masters"—namely, men who employ only three or four workmen; men who continue to work themselves, and have been workmen in their earlier days. These petty employers occupy miserable premises in back courts. They are in so small a way of business that any extra expense, however trifling, makes a great difference to them. They are also so absorbed by their work and so thoroughly accustomed to a rough life, that they have had but few opportunities of learning and appreciating the advantages of good sanitation. All these men have votes, and very naturally vote against increased expenditure for sanitary measures, the value of

which they do not yet understand. Then, besides the "little masters," there are some 20,000 workmen who are "occupiers." This is an institution very special to Sheffield. Though these men generally work for one employer, still they are independent and their own masters. They work when they like and as much as they like, being paid by the piece and not by the day. Though the employer provides the factory and the motive power, the workman rents from his employer the bench at which he works and pays for the use of the motive power. Very generally the workman pays 3*s.* 6*d.* a week rent for the place he occupies in the factory. Thus the factory becomes a sort of tenement house with any number of "occupiers," and these "occupiers" sometimes get placed on the register as voters, and are responsible for the application of the Factory Act either with regard to the prevention of accidents from machinery or the employment of women and children whom they may engage to help them in their work. Consequently the great masters of industry in Sheffield are few as compared with the enormous number of independent workmen and "little masters." This, we take it, is the political cause of the backwardness of Sheffield in respect to sanitation. The difficulty of dealing with such an electorate is very great, and there is yet one other consideration which should be borne in mind. The population of Sheffield is exceptionally stationary. In the central and most unhealthy portions of the town especially it will be found that the inhabitants are occupying the same houses or living in the same court where they were born and where their parents for some generations have lived before them. They have no experience of anything better, and cannot be readily persuaded that what their families have endured for generations can be so bad and unhealthy. It is no easy matter to get such persons to vote in favour of sanitary measures which will involve the pulling down of the houses in which they were born, will compel them to occupy other dwellings where the rents may be higher, and where the taxation will certainly be increased. Such, briefly, are some of the difficulties which the sanitary reformer at Sheffield has to face and overcome, and it is because we have no desire to harshly criticise any administration that we have prefaced our description of the insanitary condition of Sheffield with these explanatory observations.

The first, the greatest, the most evident sanitary defect of Sheffield is without doubt due to the almost universal use of middens. This has been denounced over and over again, and it would not be easy to expose the grievance in stronger or more appropriate language than that used, with so far but little effect, by the medical officer of Sheffield itself. Indeed, middens, bad enough in themselves, are especially dangerous when employed in such a town as Sheffield. The town being built on a succession of hills, the leakage and overflow of the upper middens drain into the subsoil of the dwellings built on lower levels. Thus wet cellars abound in Sheffield, and the wet is often nothing but sewage. In his official report for 1888, the medical officer of health states this is so common "that again and again I have found existing in cellars, which were quite dry, drains in communication with the street sewer provided to remove any water that might appear. These drains have usually no air-disconnexion chamber, and act as efficient sewer ventilators."

This is no pleasant picture. Cellars, invaded on one side by liquid sewage, on the other by sewer air, and the heat of the house above drawing up the miasmata of this sewage for the inhabitants to breathe. Theoretically a midden should be dry. It should contain only soil and ashes. In reality the midden contains water from the subsoil drainage, urine, and slops, which are more easily thrown in through the midden door than poured slowly into the gully grate which from the yard drains off into the street sewer. Also some of the middens are not covered over, and consequently receive rain water. In this latter respect the town authorities have displayed considerable energy in causing middens to be roofed over; thus, in most cases at least, the rain is excluded. Nevertheless, and in spite of the leaky condition of the middens, they sometimes fill up so rapidly that a drain is put in to carry off the surplus water to the street sewer. But these drains are very soon blocked up. As they are not flushed deposits are quickly formed within them composed of the most foul smelling residue. Along the whole course of the pipe or drain a nuisance is created. On this subject the medical officer of health states that "inasmuch as working-class Sheffield is mostly built in the form of courts opening into the street by a narrow foot-passage running between two houses in the court, this drain, to reach the sewer, has to run down the passage, and the state of things which results when a pipe, full of such pestiferous matter, begins to leak into the adjacent house cellars is shocking. I have seen several such cases, and in one where the leakage must have been going on for several months and where the tenant had in vain appealed to his landord again and again before calling in the inspector of nuisances. The whole of the soil beneath that half of the cellar next to the drain was sodden and black with filth, emitting a sickening smell."

Both adults and children living in this house had been suffering from sore-throat and diarrhœa. Dr. Theodore Thomson, the medical officer of health, concludes, from this experience, that the ultimate blocking of privy-midden drains, with the consequent insanitary results, is but a matter of time; that the introduction of catch pits, with a movable iron plate, so as to intercept the more solid part of the slime flowing away from the midden and thus prevent the blockage of the pipe drain beyond, only retards, but does not prevent, the blockage of the drain pipe. In the report issued for 1889, which is the last published, Dr. Theodore Thomson again complains of the same grievance, and does not scruple to qualify Sheffield as a "sewer-logged town."

Our inspection of a great number of courts and houses and their middens entirely confirms the opinion expressed by the medical officer of health.

Not only are these middens a dreadful nuisance in themselves, but when they are emptied out they occasion the greatest inconvenience. They are not like the Paris cesspools, which are emptied by pneumatic suction, the escaping gases being burnt by passing through the fire of the steam engine employed to produce the vacuum. On the contrary, the maximum nuisance is created in the emptying of a Sheffield midden. First of all, a man has to jump into the midst of the revolting filth the midden contains; then with a spade or shovel he throws the contents out into the yard, which being ill paved allows a large portion of the liquid to sink into the subsoil. From the yard the contents are put into a barrow and wheeled out into the street. There a cart is filled. Thus there are three distinct operations, the soil is turned over and shovelled about three times. Nor are the carts suitable for such a purpose. They leak and drop parts of their contents as they jolt through the streets. The whole neighbourhood is infected by the horrible odour produced. Yet this barbarous operation has to be performed two, three, and even four times a year for each midden. Nor does this prevent many middens from overflowing. Even in Town End-square, an open space created by the pulling down of some of the worst rookeries of ancient Sheffield, one of the principal things to catch the eye of the town councillor who showed us the spot was a large midden the contents of which were overflowing into a public thoroughfare. Going in and out of the various courts we found these middens at times in a most filthy condition. Some were quite unapproachable. Soil was to be seen outside doors, persons evidently not caring to enter such places. This, of course, is not the fault of the midden, but is the result of insufficient accommodation and of the careless, dirty habits of some sections of the population.

There are in Sheffield about 65,000 houses, for the most part very small houses; so small, indeed, that at least two-thirds of the dwellings have not private middens—two, three, sometimes four houses or families using the same privy. Where poverty or economy prevails, the cinders of the coal are so carefully sifted and burnt, that there is not enough ash to throw in the privy and to keep the midden dry. Nor has it been possible for the local authority to bring any very active pressure to bear with regard to the middens, for the Local Government Board has declined to amend any by-law relating to the construction of a privy. The central authority very properly refuses to recognise any closet which is not a watercloset or a pail-closet, and will not lend its high authority to the patching up of a system which is fundamentally wrong.

Why, then, it will be asked, has not the pail system been introduced at Sheffield as in so many other places which were not prepared to adopt watercloset and the water-carriage drainage? The principal reason is the topographical disposition of the town. There are something like two hundred streets with gradients steeper than 1 in 12. Some streets have gradients so steep as to be equal to 1 in 4, and, in one case, the gradient is 1 in 3·72. At all times it is no easy matter to carry heavy weights up and down such

thoroughfares, and they are almost impracticable for horses. But when there is ice, when the road is slippery, then every form of conveyance is out of the question. Even the coal consumed in the houses has to be brought up by hand. In some of the streets, ropes or balustrades have to be placed along the walls, so as to help pedestrians to climb up; and during the frost this has saved many a person from a heavy fall. Under such circumstances it is not practical to carry the pails to and fro. There can, therefore, be no question of introducing the pail system at Sheffield, and the only alternative proposed for the present prevalence of middens is the water carriage so widely approved throughout the country. The obstacles placed in the way of this obviously necessary reform are somewhat complicated, and these, together with other sanitary defects existing in Sheffield, will be more fully explained in the second portion of the present report.

THE MEDICAL DEFENCE UNION, LIMITED.

A COUNCIL MEETING was held on June 17th at 429, Strand, Dr. Bridgwater occupying the chair.

Nine new members were admitted, and the General Secretary (Dr. Leslie Phillips) reported that on that day (June 17th) the total number of members was 1715, showing an increase of 269 since Dec. 31st, 1890.

A letter from the solicitors of the Union was read on the subject of the duties and powers of the Council, and directed to be entered on the minutes. The following paragraph of this letter contains the pith of the advice contained therein: "The powers of and the principles which should guide the Council in the conduct or defence of proceedings affecting members are laid down with sufficient precision in Article 38 of the Articles of Association, which provides that 'the Council *may, after due investigation*, undertake the conduct or defence of any proceedings affecting any member of the Union,' subject to conditions there specified. There is nothing in the Memorandum or Articles of Association rendering it obligatory on the Council to undertake proceedings at all. Article 38 is most explicit. The expression there used is '*may*,' and not '*must*'; and, further, there are the words 'after due investigation.' If the Council were compelled to take up any and every case which any member chose to lay before them, however trivial or absurd, the words 'after due investigation' would be rendered a nullity. The language of Article 38 shows clearly that a wide discretion is given to the Council, and in our opinion it should be exercised on the principle above laid down, with a leaning towards a liberal construction in favour of a member of the Union in any case which may fairly be considered as near the border line."

Organising.—An authority was given to the general secretary to print 15,000 of the next annual report for circulation for organising purposes, and also to secure suitable advertisements for that issue to reduce the cost of publication and circulation.

Misrepresentation in Sale of Practice.—An application was received from Dr. C. Gross, who alleged that a person was guilty of gross misrepresentations in selling a practice to him. The solicitors advised that it was a case which could be defended. It was moved by Mr. Geo. Brown, seconded by Dr. Bantock, and resolved, "That the action of the secretaries in refusing to treat this application as an emergency be and is hereby confirmed, and that Dr. Gross be informed that if he cares for the Union to take up the case it is prepared to do so." (N.B.—This offer was accepted by Dr. Gross, and in the police-court proceedings the defendant failed to put in an appearance on the adjourned hearing on June 24th. The magistrates thereupon granted a warrant for the apprehension of the defendant, and directed his recognisances to be estreated.)

In the matter of an application from a member who complained of the drunkenness of his locum tenens, the secretaries were instructed to inform the applicant that the Council did not see how it could assist him.

The secretaries were directed to report an advertising practitioner to the General Medical Council.

The annual meeting of the East Anglian and Midland Division of the Medical Defence Union was held on Thursday, June 18th, in the new Theatre of Anatomy and Physiology, Cambridge, by permission of Dr. Alexander Hill, President of the Cambridge and Huntingdon Branch of the British Medical Association. There was a large attendance of members. Dr. Barnes, the President of the Division, being in the chair.

The President gave a short address, in which he congratulated the members on the steady progress the Defence Union was making, and on the good work it had already accomplished. In doing this he referred to the last published Annual Report—that for 1890, the third year of the Society's existence,—and showed that the number of members at the end of that year had risen to 1446, and the amount of the guarantee fund to £2173, whilst the ordinary income of the Society had been amply sufficient to meet its expenses, without any call on the guarantee fund. The cases brought before the Society and successfully dealt with by them were of various kinds, and included prosecutions of unqualified practitioners, anonymous charges of immorality, threatened actions for malapraxis, and other scarcely less important matters. The operations of their own division were not unimportant, and were spoken of in the Secretary's report, and the most urgent duty now before the Society was to complete their organisation. They were now so far organised in the division that any member who had any matter affecting him personally which he desired to bring before the Society was able to find within easy reach of him one or more officers of the Society with whom he could communicate privately and consult before taking any step which might by too early or undue publicity prejudice his cause; and they had in addition a local Council for the division, with whom rested the duty of deciding whether a case should be taken up by the Society or not, and it was clearly understood between the officers of the division and the central authorities that any case that the Divisional Council decided was a proper case to defend should be defended with the whole strength of the Union. So far, good; but there were other points involving small financial matters which were still with some inconvenience entirely referred to headquarters, and which might perhaps be referred to a branch committee. This, however, was a subject requiring much consideration and care in handling, as it was important above everything to do nothing whatever that would in the least degree tend to diminish the moral and material weight of the Union as a whole.

The Honorary Secretary (Dr. Mead) read the annual report. The cases brought under the notice of the Council had been few, but important. One, in which a medical man had to complain of comments on his professional conduct in an outbreak of diphtheria, which at the first onset was involved in considerable obscurity, had been happily ended, owing to the good offices of their Council, by a complete withdrawal of all imputations, which were shown to be utterly groundless. In another case, a threatened action against a medical officer of health had, it was believed, been averted by the prompt resolution of the Council to request the General Council to defend the threatened member. He wished personally to thank those members of the Council through whose invaluable aid, given at considerable personal sacrifice and inconvenience, these happy results had been arrived at. Some of these gentlemen had travelled considerable distances to attend the meetings of the Council. He had also on several points of importance had interviews with the editors of the leading London journals, and thanks were due to them for the courteous and efficient help they had given. The Council looked forward with hope to a diminution in the number of cases requiring the intervention of the Medical Defence Union, for the reason that persons smarting under imaginary injuries, egged on by unscrupulous lawyers, and possibly professional rivals, would be less likely to bring actions when they knew that, instead of having only a very humble practitioner to deal with, they would have to fight a Society including most of the principal members of the profession of a group of important counties. Nothing was more fearful for a man just starting on his professional career, probably having sunk all his available means, than to be attacked professionally or morally. He had in his own limited sphere known several painful cases in which severe pecuniary loss, moral and social ruin, death, and even death from suicide, had resulted from such attacks. A man joining this Society had at once to hand organised and skilled means of defence, and, instead of painful isolation, friends at once ready and willing to help him in his hour of need.

Dr. Jones (Northampton) in brief terms expressed his satisfaction at the position and progress of the Society. He felt that very good and useful work had deen done. There were many useful suggestions in the address of the President and the report of the Secretary which he had great pleasure in proposing should be adopted.

Dr. Manby had listened with great interest to the remarks of Dr. Barnes and also Dr. Mead's able report, and he begged to second Dr. Jones's resolution, adding the cordial thanks of the meeting to those gentlemen, and the Presidents, Vice-Presidents, and members of the Divisional Council, who had aided them in carrying out so efficiently the work during the past year.

Dr. Beverley thought it would be unwise, when all was working so well, to in any way disturb existing arrangements, and begged to propose *en bloc* the re-election of the staff for the ensuing year.

Dr. Elliston (Ipswich), the President for Suffolk, from his intimate knowledge of Dr. Barnes, was fully prepared to endorse all that had been said by the Secretary, and congratulated the Society on having so able a member of the profession at the head of affairs. He was equally conscious of the debt they owed to their energetic Secretary, who, he felt sure, would at all times be willing to use his utmost endeavours to protect the interests of the members. He begged to second Dr. Beverley's resolution, which was unanimously carried by the meeting.

There was considerable discussion on important motions relating to the organisation and working of the Society, and it was ultimately resolved unanimously to request the President and the Secretary to confer with the President of the Union, Mr. Lawson Tait, with regard to these and other points.

THE LONDON HOSPITAL.

HIS Royal Highness the Duke of Cambridge on Friday last, June 26th, opened the new front to the London Hospital.

The necessity for the buildings now erected has long been felt. While the hospital (so far as its ward room accommodation is concerned) has gradually increased since it was first established, to hold 130 patients, until now, when it holds nearly 800 patients, the department immediately concerned with the first reception of accident and in-door cases has remained much as it was originally. There having been then no such medical school as now exists, no proper accommodation was provided for the students in the old building. The access to the hospital for severe accidents was difficult on account of a flight of steps at the entrance, up which patients had to be carried in the open air and exposed to all weathers, and in view of the public roadway. The old chapel had long been considered wrongly placed; it blocked up the main corridors on the first and second floors, and not only prevented a proper circulation of air, but made it necessary to use the wards as passages of communication from one side of the building to the other. The operating theatre and its arrangements had long been totally inadequate for the requirements of so large a hospital, while no room existed for the purpose of clinical teaching. To remedy these and many other defects, the chairman and house committee felt compelled to yield to the constant representations of the medical and surgical staff, and accordingly instructed Mr. Rowland Plumbe, F.R.I.B.A., architect, to prepare designs for the extension and alteration of this portion of the hospital. These designs having been approved, a contract for nearly £16,000 was accepted. On the ground floor a block of additional buildings has been designed to cover the central portion of the courtyard to within a few feet of the public footway, and extending to a width of about 105 feet. The front portion is taken up by a covered roadway, having an entrance and exit from the road, and gradually rising to within two steps of the level of the ground floor at the main entrance. In front of this roadway, which is under the new chapel, a covered space is provided to shelter the friends of patients, who frequently come long distances, and have to wait in all weathers until the wards can be opened for the visitors. Lodges, waiting rooms, and an isolation ward are provided along the front. The entrance leads into a vestibule and main hall, which extends through the building; on the right is the receiving and waiting room, about 40 feet square, leading out of which are male and female examining rooms, also nurses' and receiving-room officers' rooms. On the left are the hall porter's box and a large day room for the use of the medical students, with cloak room attached, and with lavatories &c. in the basement under same. On the first floor is the new chapel, about 80 ft. long by 28 ft. wide, brought forward from the main building, and separated from it by a large open area lighting the ground floor rooms, but communicating with same through a corridor and the chaplain's vestry. The site of the old chapel is taken up by rooms 11, 12, 13, 14, used for staff purposes, and by the corridor behind, which now gives communication and ventilation, without interfering with the wards 1 and 2. On the second floor is the new operating theatre, with patients' and physicians' and surgeons' rooms immediately communicating; it also shows the new clinical theatre immediately adjoining. The two theatres are each 40 ft. long and about 23 ft. wide; they are built over the upper part of the old chapel, and are lighted from the top. The third floor contains nurses' and servants' sleeping rooms. The basement contains store cellars, lavatories, &c., and a new set of baths for out-patients. The new parts are of fire-proof construction. The general appearance harmonises with the old building as far as possible. In addition to the general decoration and beautifying of the walls and ceilings of the building, the chairman and house committee having had their attention drawn to the general sanitary condition of the hospital, it was decided that a subcommittee of the house committee and the medical staff should consider the question. In consequence, Dr. Louis Parkes was requested to inspect the premises and to act as general adviser in the matter. He presented a most detailed and exhaustive report, and the committee then requested the architect to act with Dr. Parkes, and to prepare an approximate estimate of the cost of carrying out his suggestions. Ultimately it was resolved by the chairman and house committee, and further confirmed by the resolution of a quarterly court of governors, that the following works should be at once executed—viz.: That the old disused large brick sewers and impregnated earth in and about the building, and existing since the year 1832, should be removed; that the brick sewers in the buildings should also be removed, and that the remainder (where in the grounds, but at too great a depth to safely remove) should be cut off, disconnected, and bricked up, and that an entirely new system of drainage, constructed of tested glazed pipe drains, with disconnecting traps and ventilated inspection manholes, should be carried out in lieu thereof; that new turret blocks for slop sinks, baths, &c., should be built to the old East and West Wards, and also to the Alexandra Wards; that sundry structural alterations should be made to the existing sanitary arrangements, slop sinks, &c., and that the old materials generally should be replaced by improved perfect sanitary appliances; that all objectionable and insufficiently ventilated soil and waste pipes inside the wards should be removed and be replaced with properly constructed pipes outside the buildings. The cost of these alterations will amount to at least £9000. The whole of this work is now being carried out.

His Royal Highness having been conducted through the new block, upon his return an address was presented to him on the part of the House Committee by Mr. Murray Ind, the Chairman.

The DUKE OF CAMBRIDGE, in reply, said: Mr. Chairman, Ladies and Gentlemen, — I have great gratification in coming here to-day, as I have from the earliest period taken a lively interest in the London Hospital, and the more so as I know it has no large endowment, or I believe hardly any. It has to be kept up in this populous part of London absolutely by voluntary contributions. The difficulty of maintaining so large an establishment under such circumstances is obvious, and it only astonishes me to think that so much has been done by the management. It is very true—I see it often stated—that the management of hospitals is complained of. It is quite possible, nay, probable, there are matters in hospitals, as in everything else, which occasionally require amendment; but to condemn an establishment simply because a certain number of individuals have seen what they think might be better managed seems most unjust and ungenerous. I have great pleasure in opening this large addition to the hospital, for it is a proof that, whatever may be said, the interests of the hospital are in most excellent hands. The only difficulty is that of getting the funds to carry on the work; but these

are for the public to supply. Individuals, I am bound to say, in every direction, and notably in connexion with the London Hospital, exert themselves to the fullest extent in obtaining the necessary funds to maintain so great, noble, and generous a work; but they must, of course, call upon the public to assist them in this great undertaking. It is the public at large which must really find the means to enable them to go on in a manner progressive and, at the same time, safe. From what I have seen of the improvements that have been made I consider them to be of the highest value, and I cannot conceive anything more advantageous than the additional lecture hall, or more satisfactory than the very charming chapel which is to be inaugurated under the high auspices of the Archbishop of Canterbury. I believe you will think with me that the addition to this hospital, under the management of the chairman and committee, is all that you would wish it to be, and as such I can thoroughly support it. I am glad to have this opportunity of opening this new portion, and to express to those gentlemen my entire satisfaction—and I hope I may say yours—with the exertions which they have made in the good work in which they are engaged. I declare the new portion of the hospital open.

Three hearty cheers were then given for his Royal Highness, who, having inspected the drainage works alluded to above, left the building. Service was then conducted in the new chapel. The Archbishop of Canterbury preached the inaugural sermon. Tea was afterwards served in the Nurses' Home.

We may mention that when the Duke of Cambridge and the Archbishop of Canterbury were being conducted round the building by the House Governor, Mr. Rowland Plumbe, the architect, and others, the students were assembled in the operating theatre and received the Duke in a most enthusiastic way. His Royal Highness stopped in his inspection, and gave them a short address of encouragement and congratulation. A guard of honour of the Volunteer Medical Staff Corps was drawn up to receive the Duke, and as he left the building he got out of his carriage and inspected them carefully, expressing his satisfaction with their appearance.

METROPOLITAN HOSPITAL SUNDAY FUND.

THE sum collected on behalf of the Metropolitan Hospital Sunday Fund amounted on July 1st to £39,000. Subjoined are some of the principal amounts received at the Mansion House during the past week:—

St. Peter's, Eaton-square (Rev. John Storrs):			
St. Peter's Church	560 11 8		
St. John's Church	81 17 10		
St. Peter's Chapel	10 10 0		
		652	19 0
St. Stephen with St. Thomas, Westbourne-park (the Rev. T. B. Harvey Brooks)		112	19 8
"J. C."		100	0 0
Clapton Park Congregational Church		52	15 11
Old Church, Chelsea		20	0 0
Christ Church, Albany-street		30	5 7
Emmanuel Church, West Dulwich		21	0 7
West Ham Parish Church		22	5 5
Eaton Chapel, Eaton-square		50	11 4
Epsom (St. Martin's) Parish Church		28	12 11
St. Anne's, Limehouse		21	6 4
St. John's, Deptford		50	4 1
Chapel-of-Ease, Holloway		23	1 6
W. Campbell, Esq. (a further)		20	0 0
Christ Church, Chislehurst		49	7 9
Bromley (Kent) Wesleyan Chapel		23	5 9
Rectory-place Congregational Church, Woolwich		21	8 6
All Saints', Putney		34	0 0
St. Mary with St. Gabriel, Newington		31	18 2
Foot's Gray Parish Church		31	10 0
St. Thomas's, Portman-square		85	15 6
St. Mark's, Notting-hill		39	19 4
German Latheran Church, Denmark-hill		51	16 0
St. Luke's, Hackney		27	3 8
St. John the Evangelist, Brownswood-park		20	0 1
Lewisham High-road Congregational Church		37	0 0
St. John of Jerusalem, South Hackney		20	0 0
Haverstock Congregational Church		23	10 0
Holy Trinity, Beckenham		38	17 8
Greek Church, St. Sophia, Bayswater (Very Rev. the Archimandrite, Dr. Dionysius Plaisas		90	4 9
Park (Congregational) Church, Camden Town		35	19 2
St. Andrew's, Fulham		35	17 8
Holly-park Wesleyan Chapel, Crouch-hill		20	0 0
Archway-road Wesleyan Chapel		21	19 0
St. Luke's, Nutford-place		76	3 10
Emmanuel Church, Forest-gate		22	5 11
St. Mary's Parish Church, Islington		20	0 0
St. Paul's, Greenwich		25	10 1

THE GRAND PRIORY OF THE ORDER OF THE HOSPITAL OF ST. JOHN OF JERUSALEM IN ENGLAND.

ON Wednesday, St. John the Baptist's Day, the annual commemoration service of this Order was held, as in previous years, by permission of her Majesty, in the Chapel Royal, Savoy. An eloquent and especially appropriate sermon was preached by the Rev. Teignmouth Shore, Canon of Worcester and a chaplain of the Order, who, taking for his text 2 Ezek. 1, urged that, though Christianity gave greater prominence to the gentler virtues, yet manliness and heroism were inculcated throughout both the Old and New Testaments. Humility in the individual and the dignity of the race were the principles upon which Christian chivalry was based. The preacher concluded with an eloquent appeal to exercise the virtues of manliness and courage, for which in the present age there was great need in Church and State. The offertory amounted to £21 15s. 6d.

Sir Edmund Lechmere, Chancellor of the Order, presided at the luncheon at the Albion Tavern, and at the General Assembly—which, on account of the Chapter House at St. John's Gate being too small to admit such a numerous company, was held in the Governor's Room at the Charterhouse by the courtesy of the master, the Rev. Canon Etwyn—the Secretary-General made a brief statement as to the progress of the Order during the past year, and the various departmental reports were also read. Those of the Ambulance Department, the British Ophthalmic Hospital at Jerusalem, and the Almoners' Department showed a marked advance in respect of work and usefulness as compared with former years. In the course of the meeting it was stated that the Ambulance department was now opening up a hitherto unoccupied field of immense extent—namely, the mercantile marine—and that there was a very gratifying increase in the appreciation of the dietaries prepared and distributed on behalf of the Order by the nursing sisters of St Philip's Mission, Lloyd-square. The necessity for increased support of the British Ophthalmic Hospital at Jerusalem was urged by several speakers; and Mr. John M. Cook, who is a member of the committee, and from his frequent visits to the East is familiar with the astonishing amount of work daily performed by the one medical officer of that institution, bore emphatic testimony to the self-denying labours of Dr. Cant and of his excellent wife.

IRISH PROGRESS DURING THE PAST TEN YEARS.

AT a meeting of the Statistical and Social Inquiry of Ireland, held this week, Dr. Grimshaw, Registrar-General for Ireland, read a paper on Irish Progress during the Years 1881–90. A very important element in reference to population is the fact that emigration, which was 109,000 in the year 1883, was lowered to 61,000 in 1890, and probably for the future a decided decrease below this latter may confidently be expected. He pointed out that the rateable valuation of the country has been increased by the growth of towns of over 10,000 inhabitants. The great feature in Irish agriculture, Dr. Grimshaw remarked, is the steady progress in the conversion of tillage farming into stock farming, while there has been a corresponding increase of agricultural wealth. Thus horses have increased by 37,000, cattle by 283,000, sheep by 1,067,000, or 32·8 per cent. In respect to manufactures, power-looms for linen manufacture have increased by 4871, or 22·1 per cent., while the railway receipts show an increase of 17·7 per cent. With regard to bank deposits, we learn that during the first five years of the decade the annual average of the joint-stock bank deposits and cash balances was £30,849,000, and during the last five years £31,443,000. Considering the agrarian agitation and political situation of the last few years, Dr. Grimshaw is of opinion that Ireland has progressed favourably in material prosperity during the past decade.

THE PROPOSED ALBERT UNIVERSITY BEFORE THE PRIVY COUNCIL.

THE following are the cases argued during the week before a Committee of the Privy Council on behalf of the various bodies in London interested in the matter:—

CASE ON BEHALF OF THE PETITIONERS—KING'S AND UNIVERSITY COLLEGES.

1. This is a petition presented to the Queen's Most Excellent Majesty in Council by University College, London, and King's College, London, praying that she would be pleased to grant a Charter for the foundation of a University for London. A draft of the Charter for which the petitioners pray accompanies the petition.

2. This petition is supported by a petition of the Right Reverend Frederick Lord Bishop of London to Her Majesty in Council.

3. This petition is further supported by a statement sent in to the Privy Council Office, by the teachers of the Westminster Hospital Medical School and a number of the staff of the said hospital, in favour of the establishment of a Teaching University in London.

4. A petition to Her Majesty in Council has also been presented by the physicians, surgeons, and teachers of the medical schools of St. Bartholomew's, Charing-cross, Guy's, London, Middlesex, St. George's, St. Mary's, St. Thomas's, and Westminster Hospitals, which, while it represents that the establishment in London of some body of academic constitution with power to grant degrees in medicine would be of great benefit to the public, prays that in any Charter to be granted the position of the said medical schools may be fully recognised, and that they may be admitted into the constitution of any proposed University on terms of equality with any other teaching body of like standing.

5. A memorial to Her Majesty in Council has been presented by the Senatus Academicus of the University of Edinburgh, expressing their sympathy and cordial concurrence with the main purport of the petition of University and King's Colleges and with the arguments in its support, but objecting to the provision in Section 5 of the Draft Charter, in which it is proposed that no ordinary medical degree shall be conferred on any person who shall not previously have obtained a qualification for registration under the Medical Acts, on the ground that there is no reason why the proposed University should not in this respect be placed on the same footing as the sister Universities in the United Kingdom. The said memorial also expressed a hope that if a Charter should be granted the Council of the University would make certain provisions with regard to attendance at classes in Edinburgh as a qualification for admission to the examinations of the new University.

6. A letter has been written by the Registrar of the University of London to the secretary of Her Majesty's Privy Council expressing the desire of the Senate of the University of London to show cause before the Lords of the Privy Council why the present petition should not be granted. No formal petition against the granting of the said Charter has (so far as the petitioners know) been presented by the University of London.

7. A petition to Her Majesty in Council has been presented by the President and Members of the University of Durham College of Medicine at Newcastle-upon-Tyne, praying that the petitioners' Charter might not be granted, on the ground that if this privilege were conceded it would prove to be detrimental to the existent Universities in England.

8. Three petitions have been presented by the Royal College of Surgeons of Edinburgh, the Faculty of Physicians and Surgeons of Glasgow, and the Royal College of Physicians of Edinburgh, praying that, if by the petitioners' Charter it should be provided that candidates for medical degrees should be required to possess diplomas of the Royal College of Physicians of London and the Royal College of Surgeons of England, the same provision might be extended to the diplomas of the petitioners respectively. Letters to the same effect have been addressed to the Lord President of the Council by or on behalf of King's and Queen's College of Physicians in Ireland and the Royal College of Surgeons in Ireland.

9. The Presidents of the Royal College of Physicians of London and the Royal College of Surgeons of England have addressed a request to Her Majesty's Privy Council to be heard on the petition for the grant of a Charter.

10. In addition to the petition of University and King's Colleges and the various petitions and memorials regarding it, above referred to, a petition has been presented to Her Majesty in Council by the Royal College of Physicians of London and the Royal College of Surgeons of England, praying that the President and twenty-three persons from each of the said Royal Colleges may be incorporated under the name of the Senate of Physicians and Surgeons, with power to grant degrees in medicine and surgery. A number of petitions in support of, in opposition to, and praying for modifications of the above-named petition were presented, a list of which is given on pages 21 and 22 of the Appendix to the Report of the Royal Commission.

11. The Royal Colleges of Physicians and Surgeons of Edinburgh and the Faculty of Physicians and Surgeons of Glasgow have likewise petitioned that certain of their Presidents and Fellows should also be incorporated into a Senate of Physicians and Surgeons of Scotland with power to grant degrees in medicine and surgery. In their petition the petitioners explained that they had no desire to take any step to disturb the existing arrangements whereby universities alone have the privilege of granting degrees in medicine, but that in consequence of the action of the two Royal Colleges in London they had been constrained to apply for powers similar to those sought by them.

12. A similar petition has been for similar reasons presented by the King and Queen's College of Physicians in Ireland and the Royal College of Surgeons in Ireland, praying that a senate of the physicians and surgeons should be constituted, with power also to give degrees in medicine.

13. On May 2nd, 1888, after the various petitions and memorials above mentioned had been presented, a Royal Commission was appointed consisting of the Right Honourable the Earl of Selborne, D.C.L., F.R.S.; the Right Honourable John Thomas Ball, LL.D., D.C.L.; the Right Honourable Sir James Hannen; the Honourable George Charles Brodrick (who resigned his place on the said Commission at an early stage); Sir William Thompson, Knt., D.C.L.; Professor Stokes, M.A., F.R.S., M.P.; and the Reverend James Edward Cowell Welldon, M.A. The said Commission, after reciting that certain petitions had been presented to, and were then under the consideration of, Her Majesty's Privy Council, and that sundry memorials and petitions relating thereto were also before the Privy Council, authorised and appointed the above-named Commissioners to be Her Majesty's Commissioners to inquire whether any and what kind of new university or powers is, or are, required for the advancement of higher education in London.

14. A letter was written on March 15th, 1888, by the Secretary of Her Majesty's Most Honourable Privy Council informing the Secretary of King's College that the Lord President had desired him to inform the said secretary of King's College that, inasmuch as the Government had determined to refer the whole subject to a Royal Commission, it would not be necessary for them to prepare and lodge a case at present.

15. The said Commission held its first sitting to take evidence on June 2nd, 1888, and heard the evidence of forty-five witnesses. The following institutions were represented by witnesses—viz.: University College, King's College, the Royal College of Surgeons of England, the Royal College of Physicians of London, the University of London, the Convocation of the University of London, the Medical Schools of St. Bartholomew's, Charing-cross, Guy's, London, Middlesex, St. George's, St. Mary's, St. Thomas's, and Westminster Hospitals, the Association for founding a Teaching University in and for London, the London Society for the Extension of University Teaching, the Incorporated Law Society, and the Society of Apothecaries. Written communications were also received from various other bodies.

16. At the hearing of the evidence it was admitted by all the witnesses (as the petitioners believe), without exception, that the institution of a teaching university was desirable, and evidence was given of various schemes which had been prepared by committees of the Senate and Convocation of the University of London to supply this want. None of the schemes had, however, been finally approved by the London University.

17. The report of the Commission, to which the petitioners will crave leave to refer in detail, was dated April 29th, 1889. The said report stated that in the opinion of the Commissioners the general case for a teaching university was made out, but recommended as follows:—"That a reasonable time should be allowed to the Senate and Convocation of the University of London to consider whether they will apply to your Majesty for a new Charter extending the functions and duty of their University to teaching, associating with it teaching colleges and institutions, remodelling the constitution of its Senate, establishing an electoral bodies the teachers of its constituent and associated colleges and institutions in the several faculties of arts, science, laws, and medicine, establishing boards of studies, and otherwise granting new powers to the University in accordance with the suggestions contained in the report. In the event of their applying for and obtaining such a new Charter, we recommend that no other university be now established in London, and that the prayer of the petition of University College and King's College be not granted. We further recommend that the consideration of the course which your Majesty might be advised to take in the contrary event should be for the present reserved; and that if that event should happen, and if your Majesty should think fit to remit the subjects on which we have been appointed to make inquiry for our further consideration, we should be at liberty to make to your Majesty a further report." The said report was signed by Lord Selborne, Professor Ball, Sir James Hannen, and by Sir William Thompson, Professor Stokes, and the Reverend James Edward Cowell Welldon (subject to a note appended thereto), in which note the said last-named three Commissioners reported as follows:—"Considering that the London University has long since ceased to be in any sense a teaching university, and has become merely an examining board; that in this capacity it has established a high reputation, and is doing a useful work for the whole empire; and considering the very large number of candidates who present themselves for the various examinations leading up to a degree, we doubt the possibility of effectually combining the functions of an examining, and of a teaching as well as examining, university in the University of London, and on this account we should have preferred the establishment of a new teaching university for London, leaving it to the London University to continue to discharge its present functions. At the same time we feel that there are objections which may be urged against the plan of having two distinct universities in London discharging totally different functions, though we are not disposed to attribute so much importance to these objections as some of our colleagues. If it is assumed that there is to be but one university for London, we think that the change in the constitution of the London University recommended in the report is as good as could be desired, and we acquiesce in the recommendation that an attempt should be made to unite the teaching and examining functions in a single university."

18. With regard to the petition above mentioned of the Royal College of Physicians of London and the Royal College of Surgeons of England praying to be empowered to confer degrees, the Royal Commissioners reported as follows:—"The result has been to satisfy us that a great demand exists for medical degrees attainable in London more easily than at present, and that it may be desirable to provide for that want in some proper manner. But a careful consideration of the whole evidence has led us unanimously to the conclusion that the establishment of such a body as the Senate of Physicians and Surgeons proposed by the Royal Colleges would not be the best means by which that end could be attained," and they were therefore of opinion "that the Charter asked for by the Royal College of Physicians of London and the Royal College of Surgeons of England ought not to be granted."

19. In pursuance of the recommendations above mentioned, a new scheme for a charter for the University of London was prepared by a committee appointed by the Senate of the said University. It was submitted to a Convocation of the said University on May 12th, 1891, and its adoption moved. It was rejected by a very large majority.

20. Thereupon on May 20th, 1891, the secretary of Her Majesty's most honourable Privy Council addressed to the secretary of King's College a letter, informing him of the said rejection by Convocation of the scheme of the Senate of the University of London, and that the Lords of the Council now proposed to take into consideration the petition of King's College and University College praying for the grant of a

Charter for a Teaching University in London, and that they would fix a day for hearing counsel in the matter.

21. The area of the London district, for which it is proposed by the draft charter that the new university should be founded, comprises that part of London and of the surrounding counties which lies within a circle having a radius of fifteen miles and its centre at Somerset House. This area nearly coincides with that of the Metropolitan Police District for London, in which it is stated that in the week ending June 13th, 1891, there were resident 5,633,332 persons.

22. This population is the largest and wealthiest ever ascertained to be residing within limits admitting of daily intercourse. In intelligence, enterprise, and desire for improvement it is in no respect inferior to other communities, inasmuch as it comprises the capital of the British Empire, the seat of its Government, and the largest and most valuable libraries and national collections of any city in the world. It is believed to be the only important city in Europe which is unprovided with a university in the common acceptation of the term—that is to say, an association of teachers and students in all the principal departments of learning organised in a suitable manner for the transmission and increase of knowledge, and possessing the power of granting public degrees as marks of proficiency.

23. The University of London is a body established by Royal Charter which examines students and confers degrees highly and justly valued by those who have obtained them. Its examinations are open to all persons from every part of the Empire, and are held in various parts of England as well as in the colonies. No residence or regular attendance at any lectures, or organised course of study, is required of those who present themselves for examination (except in the case of medical degrees), nor are the governing bodies, professors, or teachers of any other institution either in London or elsewhere recognised as having any right to be consulted as to the mode or times of conducting the examinations, or as to the standard of excellence to be required of those who present themselves as candidates for degrees.

24. The said University of London was originally founded in 1836 for the purpose of conferring degrees upon students coming from University and King's Colleges and from such other institutions as might thereafter be affiliated to the University. But no official representation upon the governing body was ever given to any of the affiliated institutions, nor were the teachers of such institutions ever associated as such in the work of the University.

25. Originally degrees were only granted to students of affiliated colleges, which, including the various universities, colleges, academies, and grammar schools, numbered about fifty. Students from the Universities of Oxford and Cambridge were also admitted to the examinations for degrees as though they came from affiliated colleges. "When at last, in 1858, the examinations and degrees of the University were, under a new charter, thrown open to all comers, without any distinction between those who came from affiliated colleges and others, and when the University ceased to require, except for medical degrees, attendance for instruction at any teaching institution at all, affiliation became a name without practical value."

26. Although, therefore, the said University bears the name of the University of London, it does not, as the petitioners contend, really constitute a university in the full and true sense of the word, nor is it (except by the circumstance of its meetings being held at Burlington House) more closely related to London than to any other part of Her Majesty's dominions. Upon this point the Royal Commissioners reported as follows:—"The existing university, as long as it is a mere examining and degree-giving body for students, collegiate and non-collegiate, from all parts of the Kingdom, and even from the colonies, is not a *London* University in any practical sense."

27. University College was founded in the year 1826, and was opened in 1828 under the name of "The University of London," with the intention on the part of its founders that it should be established as a university giving regular instruction by means of professorial lectures, and should acquire the power of conferring degrees upon its own pupils. After the teaching functions of a university had been for some time successfully discharged by the College it was in 1835 recommended by a vote of the House of Commons that it should receive a charter to confer degrees. In 1836 University College was incorporated by Charter, and in the same year the existing University of London was founded, and the College was thereupon incorporated under its present name, the claim to confer in degrees being withdrawn, but the institution in all other respects remaining unaltered. It comprised in the year 1887 a Faculty of Arts and Laws with twenty-seven professorial chairs, a Faculty of Science with fifteen, and a Faculty of Medicine and recognised medical school with sixteen chairs. The total number of the staff, including professors and assistant professors, physicians and surgeons in the hospital, lecturers, and demonstrators is about 100. The entire number of students in the college was, in 1885–86, 1192, of whom 383 belonged to the Faculty of Medicine, and 160 to the Slade School of Fine Art. There is also belonging to it a boys' school containing 550 scholars. The total amount received in the same year from fees was £33,250, of which £13,087 was received in the boys' or junior school. The college is endowed with a site of seven acres, and with buildings erected upon it, which, including the hospital, have cost upwards of £300,000. There are belonging to the college invested funds to the amount of about £200,000, which are held chiefly upon special trusts for scholarships and prizes, and by way of partial endowment for a few of the professorships. The college also holds about £135,000 in trust for the hospital. All the classes except those in the Faculty of Medicine have since 1878 been open to women. University College is well equipped with laboratories for the teaching of science and art. Many societies are formed amongst the students for the purpose of assistance and encouragement in their studies. There are also other societies for recreation. No residence in any particular houses or buildings is required, as at Oxford or Cambridge, but the students are subject to the moral disciplinal control of the College by means of a court of discipline.

28. King's College was founded by Royal Charter in 1828 in order that the various branches of literature and science, and also the doctrines and duties of Christianity, as the same are inculcated by the Church of England, should be taught in the College. In 1837 it became affiliated to the University of London, and so remained until that University abandoned the system of affiliated colleges. It comprised in the year 1887 a theological department with eight chairs, a department of general literature and science with twelve chairs, a department of applied science with ten chairs, a department of medicine with nineteen chairs, to which is attached a hospital with a staff of nineteen physicians and surgeons; a department for the higher education of women, occupying a separate college at Kensington, receiving the services of twenty-three professors and lecturers; a department of evening classes receiving the services of forty-three professors and lecturers, besides other departments and a public school. The total number of the staff, including professors, lecturers, physicians, and surgeons, is more than 100. The number of students of all kinds in the College is about 1000, besides 400 boys in the school, 1300 students attending special classes, and 500 ladies attending the lectures at Kensington. The total amount of fees received during the year 1887 was £42,714, of which £9500 was received in the school. The College occupies a site attached to Somerset House on a lease from the Crown of 999 years, and the buildings erected upon this site, together with the hospital situated in the immediate neighbourhood, have cost at least £300,000. It also holds trust funds to the amount of £42,000, chiefly for the endowment of scholarships and professorships, besides sundry funds held in trust for the hospital. There are at King's College very well equipped laboratories for the teaching of science both on its theoretical and practical sides, together with libraries, museums, and a fine art studio.

29 and 30 reproduce paragraphs 7 and 8, p. ix., of the Royal Commissioners' Report.

31. The number of students registered as attending the London medical schools has been computed at 2150 of from one to five years' standing, to which must be added about fifty more who are registered elsewhere, but who are attending the classes or hospitals in London. From this total of 2200 must be deducted a certain number due to illness, absence, or death. The petitioners believe that this number of students is second only to one other city in the world—namely, to Vienna, which is believed to have 2318 medical students on the Register, including those who study pharmacy.

32. The Royal College of Physicians of London and the Royal College of Surgeons of England are of ancient foundation, and number among their Fellows and Members many of the most eminent medical men in England. They have by law power to confer licences entitling the holders to be registered to practise under the Medical Acts. Examinations are held by them for this purpose. They are not teaching or educational bodies, nor do they possess the power of conferring academic degrees.

33. The registration of medical practitioners necessary by law to entitle them to practise is controlled by the Medical Council (which has branches in England, Scotland, and Ireland, and to which Council the various bodies in the United Kingdom capable of granting licences to practise send representatives. The Medical Council (among other powers) has power to watch the various medical examinations throughout the country and to move the Lords of the Privy Council to cause the licensing power of any corporation to be suspended or revoked when examinations appear to be insufficient or improperly conducted.

34. Upon the condition of medical teaching in London, the Royal Commissioners reported in paragraph 9, p. 9.[1]

35. The Royal Commissioners, when dealing with the various schemes for constituting the University of London a teaching university for London, say as follows:—"On this point, therefore, our opinion is, that the metropolitan limit should be adhered to; and we think that there may properly and conveniently be, within that limit, different degrees of association. Such colleges as University College and King's College, which give academical instruction upon a complete system and an adequate scale in all the faculties, may well be called 'constituent colleges' (as was proposed by the schemes of the Committees of Convocation); and they appear to have a just claim to be at once admitted as such by the Charter necessary to include teaching within the functions of the University, if they are willing to accept that position. Institutions limited to the studies of a single faculty may be 'associated' with the University in respect of that faculty; but they should not, we think, be called 'constituent colleges.' We assume that the medical schools attached to the nine hospitals unconnected with University or King's College would (if willing) be admitted by the new charter to the benefits of such association. As to examining bodies which do not regularly teach (such as the Royal Colleges of Physicians and Surgeons, the Council of Legal Education, and the Incorporated Law Society), it would not seem proper, or likely to be acceptable to them, that they should be made or called either 'constituent' or 'associated' colleges or institutions of the University. But we think it would be beneficial to the University in respect of the faculties with which they are respectively concerned (and we should hope it would not be unacceptable to them) to be connected with the University by means of some representation on its governing body (as was proposed in the same two schemes), and, perhaps, on its boards of studies also."

36. The three great functions of a university are, as the petitioners submit, the organisation of teaching, the stimulation of study by the mutual intercourse between the teacher and the students, and the examination of students with a view to conferring degrees. There is, as has been shown, no university in London which unites all these functions.

37. The petitioners will humbly submit that in their experience the severance of the work of examination for degrees from the work of teaching has an injurious effect upon university education. Examinations so arranged, though a test of knowledge in a narrow sense of the word, are no adequate test of real education, and tend to deprive instruction and study of that power of transforming the mind of the learner which is their most valuable function. In his evidence given before the Royal Commission the Lord Bishop of London says: "I have no hesitation in saying that the most effective instrument of giving the highest kind of education is contact with great masters of the subjects to be taught, and that there is nothing else which can supply the place of that contact of mind with mind. .... I do not think that an examination alone, taken apart from the teaching, really fulfils the proper purpose of an examination." Evidence to the same effect was given by Sir Joseph Lister, Bart., D.C.L., F.R.S., and by a number of other witnesses. This view was (the petitioners submit) uncontroverted. The petitioners believe that the difficulty of inducing students to undergo the discipline of a steady attendance at lecture-rooms and laboratories, which has an excellent effect on the formation of regular habits of study, is greatly increased by the circumstance that such attendance under the present arrangements is in no way recognised as aiding to

[1] Vide THE LANCET, June 1st, 1889, vol. I., p. 1106.

qualify them to obtain degrees. In this respect the petitioning colleges feel that their power of teaching is impaired, and that they are placed at a great disadvantage as compared with other colleges in the United Kingdom.

38. Owing to the want of representation of the teachers in London upon the Senate or Councils of the examining authority there is a dislocation between the bodies which regulate the teaching and the body which regulates the examinations. The examining body is not in touch with the teaching body. In a letter addressed to the Secretary of Her Majesty's Most Honourable Privy Council by the Registrar of the University of London the writer on behalf of the Senate says, "The Senate are at one with the petitioners in holding that the various teaching bodies in London would greatly gain by union and coördination." On the part of the medical schools the want of association between the teaching bodies and the examining bodies was strongly represented to the Commissioners. In addition to this, the fact was pointed out that it was this dislocation which mainly led to the students "leaving London, where they can obtain the best clinical and professional teaching with ease, but a degree with difficulty, for places where they can obtain a degree with ease and real knowledge with difficulty.

39. The want of coördination between the teaching colleges and the University of London was represented to the Royal Commissioners as tending to cause the teaching power of the country to "gravitate from London to places where the professors can obtain the position of University Professors," and, moreover, as exercising a discouraging effect upon the pecuniary support which a complete University in London might expect to receive.

40. The Draft Charter which accompanies the petition of University and King's Colleges (to the details of which the petitioners when needful crave leave to refer) provides for the foundation of a university for a district comprising the area within a circle having a radius of fifteen miles and its centre at Somerset House, consisting of University and King's Colleges, and comprising all such medical schools in London as claim to be admitted as medical schools in the University, provided that they are recognised as efficient by any body having power to grant a qualification for registration under the Medical Acts. It provides also for the admission of other colleges from time to time. [The chief clauses in the Draft Charter were printed in THE LANCET of June 13th, 1891.] The petitioners therefore pray that Her Majesty may be graciously pleased to grant a Royal Charter (in the terms of the Draft Charter or in such other terms as to Her Majesty may seem proper) to a body of persons to be appointed as therein described, to be a University in and for the London district, having power to grant degrees in the Faculties of Arts, Science, and Medicine, with power to add other faculties, and to make such orders therein as to Her Majesty in her Royal wisdom and justice may seem meet. The petitioners submit that the said prayer should be granted for the following (among other) reasons:—(1) That it has been shown that London is without a university in the full sense of the word; (2) that it is desirable in the interests of higher education that such a university for London should be established by Royal Charter, with power to examine and confer degrees; (3) that it is expedient that University and King's Colleges should be colleges in the said university, and that the efficient medical schools in London should be medical schools in the university, and that other colleges in London, when properly qualified, should be admitted into the university from time to time, and that the professors and teachers of such colleges and schools should be duly represented on the governing body of the said university; (4) that it is expedient that the powers of the said university should be confined to the London district proposed in the Draft Charter; (5) that no scheme whereby the constitution of the existing University of London could be remodelled so as to fulfil the functions of a Teaching University for London has met with the approval of the Senate and Convocation of the said university, nor has any such scheme been shown to be reasonably likely to succeed if put into practice; (6) that the proposed Draft Charter affords a good basis for a Teaching University for London, in which the interests of the various faculties and of the medical profession have been fairly satisfied and conciliated; (7) that it has been shown that, if the said Draft Charter be granted, a large and important university will be established in London; (8) that the form of the Draft Charter and the powers and constitution therein proposed to be conferred upon the University are such as will best conduce to the above objects and to the true interests of the higher education of Her Majesty's subjects; (9) that the grant of the said Charter will in no way conflict with the existing University of London, whose methods and aims are different from those of the proposed University, and whose examinations and degrees are not confined to London, but extend over the whole British Empire.

CASE ON BEHALF OF THE UNIVERSITY OF LONDON STATED BY THE SENATE OF THE UNIVERSITY.

1. The first point to which the attention of the Lords of the Council is invited is the name proposed for the new University, the "Albert University of London." It is obvious that the mere coexistence of two Universities in one place is likely to create confusion, and that convenience therefore requires that the name of the proposed University should be as distinct as possible from that of the existing corporation, whereas the name proposed will be so nearly like that of the old body that, in fact, if it be adopted, there will be two Universities of London, and a graduate of the Albert University would correctly describe himself as a graduate of a University of London. It is submitted that the words "of London" should be omitted from the corporate name of the new body.

2. The Senate of this University, though retaining the objections to the creation of a new University formerly urged by them before the Royal Commissioners, nevertheless, under existing circumstances, desire to offer no further opposition to the Charter petitioned for, so far as it proposes to confer on the petitioning Colleges the power of granting degrees in Arts and Science to students of the Colleges who have pursued their entire academic curriculum within the Colleges.

3. But so far forth as the Charter, if granted, would go further, and enable the new University to confer degrees on other persons, the University desires to submit that the proposed Charter goes beyond the declared object and intent of the petitioners, and would create a needless and mischievous competition with the existing university, which is confessedly able satisfactorily to meet the requirements of students other than those of the petitioning colleges.

4. The petition of the Colleges lays great stress upon the paramount importance of close association of students and teacher-examiners, and of placing the power of granting degrees in the hands of those teachers who have instructed the candidates. Reference may be made in support of this statement especially to paragraphs 5, 6, 16, and 17 of the petition. The same view was prominently put forward in the evidence tendered on behalf of the Colleges before the Royal Commission.

The Draft Charter nevertheless (sec. v.) gives power to accept residence and examinations at other universities in lieu of residence and examination at the proposed new University, if only such portion of the final period of study as the Council may determine (which might be a short attendance at evening classes) be passed at that University, and also confers on the proposed new University the power of admitting to its degrees graduates of any other University in Her Majesty's dominions. It is submitted that these powers should not be granted to the new University.

5. Another and most important question raised by the Draft Charter has reference to the Metropolitan Medical Schools, to which the Draft Charter proposes to give the right to claim admission as Medical Schools in the New University.

If the numerous Metropolitan Medical Schools were associated with the new University, it is clear that, so far as medical degrees are concerned, the teacher-examiner system, which forms the foundation of the demand for a new University, would not apply, and that the only result would be a competition with the present University in the granting of Medical Degrees which would be injurious to the interests of sound medical education.

It is also to be observed that the arguments of the petitioners, so far as regards the Faculties of Arts and Science, do not apply to the Faculty of Medicine, in which the collegiate system is already fully at work. The medical examiners in this University have in the great majority of cases been selected from the teachers in the London medical schools, in the present year the numbers being twelve out of fourteen. Under the existing Charter of this University, moreover, no student is admitted to a medical degree unless he has studied at one or other of the medical institutions recognised by this University, amongst which are to be found all the medical schools of London, which it is now proposed to associate with the new University.

CASE ON BEHALF OF THE ROYAL COLLEGE OF PHYSICIANS OF LONDON AND ROYAL COLLEGE OF SURGEONS OF ENGLAND.

1. The Royal College of Physicians, from 1518 to the beginning of this century, exercised the principal influence in London in medical education, even to the extent of controlling the defects of the Universities, and since the beginning of the present century the two Royal Colleges, at first separately, and since 1884 conjointly, have regulated the education and directed the particular studies of the majority of students of medicine in London. The Royal Colleges submit that the draft of the Albert Charter provides a new organisation of medicine in London for educational and examination purposes, traversing more or less that organisation which has so long existed between the Royal Colleges and medical schools, and which has attained such high distinction. It is further submitted that in the existing organisation, the Royal Colleges have largely directed and controlled the teaching in the various schools of medicine, and have conferred licences to practise on the majority of medical practitioners; that there has grown up between the Royal Colleges and the medical schools a close connexion which has created a true faculty of medicine in that the teachers of the various professional subjects in the medical schools are largely represented on the governing bodies and on the examination boards of both the Royal Colleges; and that the Royal Colleges have from time to time increased the stringency of the examinations for their qualifications, and have added to the course of study, and have incurred great expenses in erecting and equipping examination buildings, and in providing all appliances for examination purposes, so as to ensure the thorough proficiency of the medical practitioner.

2. The Royal Colleges submit therefore—(*a*) That from their long connexion with the metropolis, the influence which they have exercised over the advancement of education, their high position in the profession, and the prestige which their diplomas have obtained, they are entitled to hold, as heretofore, the foremost place in any new organisation for the granting of medical degrees in London. (*b*) That in any central teaching and examining university, such as is sought to be constituted by the charter of the Albert University, it is submitted that the Royal Colleges should occupy such a position as shall enable them to continue their control of medical education, within as well as without the University, and to utilise their experience in examination matters for the improvement of the medical profession and the good of the public; (*c*) That the Royal Colleges possess at the present time complete arrangements, with all the necessary buildings, including offices, examination rooms, and appliances for conducting the business of the medical faculty.

3. The Royal Colleges have no desire to offer opposition to the general aim of the Charter petitioned for, and are anxious to assist the petitioners in the establishment of a Teaching University on the following basis:—*A.* The Medical Faculty to consist of the Governing Bodies of the Royal Colleges. *B.* All resolutions of that Faculty to require the separate assent of both Royal Colleges before submission to the Council of the University. *C.* That the decisions of the Faculty shall be subject to the approval of the Council of the University, which shall have the power of veto, but not of alteration. *D.* The Royal Colleges to be represented as the Faculty of Medicine on the Council of the University. *E.* A board of studies in the Medical Faculty to be formed, consisting of: (*a*) Representatives in equal numbers chosen by the governing bodies of the Royal Colleges; (*b*) examiners in the professional subjects for University purposes; (*c*) teachers in the professional subjects selected by the medical schools. The duties of the Board of Studies shall be to advise the Faculty on all matters relating to the curriculum and the examinations, and to nominate examiners for election by the Faculty. *F.* An administrative board for carrying out the regulations of the Faculty shall be constituted; its Members to be chosen from among the representatives of the two Royal Colleges and from the teachers represented on the Board of Studies.

4. This scheme involves little alteration in the existing arrangements, which, as has been shown, already carry on the work of a Medical Faculty, whilst, by the formation of a board of studies as proposed, the teachers and examiners in medical subjects will be enabled to exercise to a greater extent than heretofore that influence which is so essential

to the harmonious combination and efficiency of teaching and examination.

5. The Royal Colleges submit that a difference should be made between the constitution and relation of the Faculty of Medicine to the University and the constitution and relation to the University of other Faculties, for the reason that in the former teaching and examining are already closely connected, whilst in the others, so far as Arts and Science are concerned, there is not in London at the present time any similar connexion.

STATEMENT ON BEHALF OF THE MEDICAL SCHOOLS OF THE HOSPITALS OF THE METROPOLIS.

1. This statement is submitted on behalf of the following medical schools engaged in the work of teaching medicine and science, or medicine alone, in the metropolis, namely:—(1) The Guy's Hospital Medical School; (2) the London Hospital Medical School; (3) the St. Bartholomew's Hospital and College; (4) the St. Mary's Hospital Medical School; (5) the St. Thomas's Hospital Medical School; (6) the Charing-cross Hospital Medical School; (7) the Middlesex Hospital Medical School; (8) the St. George's Hospital Medical School; (9) the Westminster Hospital Medical School; (10) the London School of Medicine for Women.

2. The above-named medical schools (hereinafter referred to as the metropolitan medical schools) give instruction in Science and Medicine, or Medicine alone, to about 2600 students for the medical profession annually. They have been founded and maintained some of them for more than a century, and have been endowed with scholarships through the exertions of private individuals, without grants from the Crown or aids from Parliament. The duties which this great educational organisation discharges are of the highest importance to the public.

3. Each of the metropolitan medical schools is in itself a complete medical college, giving instruction in every branch of a medical education, and providing abundant opportunities for the improvement of medical science. The students who attend each medical school are invariably above sixteen years of age. Previously to entering at the medical school each student must have passed some test of general education. The course of work of a student after having passed the test of general education is divided into (1) what may be called strictly scientific work, such as chemistry and physics; (2) what may be called preliminary medical science of the character of anatomy and physiology; and (3) the clinical or practical work of the medical profession; and the period of study is practically a minimum of four years, though many students take a longer time than that.

4. The Draft of the Charter of the proposed Albert University of London proposes to create a University which is to provide for its students the best attainable teaching in all the subjects included in its faculties, together with the necessary appliances and aids to study, and which is to be responsible for systematic courses of teaching in the metropolis. The proposed University is by the Draft Charter to have power to confer degrees in Medicine.

5. In the draft of the Charter it is proposed that University College, London, and King's College, London, shall be constituted colleges in the University, but no recognition as a college in the University, in respect of the faculties of medicine or science, is given to any one of the above-named metropolitan medical schools.

6. The draft of the Charter further provides for the direct representation of University College, London, and King's College, London, on the Council of the University, by three persons to be chosen by each of those colleges. The above-named metropolitan medical schools are not under the proposed Charter awarded any direct representation at all on the Council of the University. Four members of the Council of the University are under the proposed Charter to be appointed by the assembly of the Faculty of Medicine, but except so far as the holders of office in the metropolitan medical schools would, as members of the Assembly of the Faculty of Medicine, take part in the election of four members from that Assembly, the metropolitan medical schools will not, if the Charter is granted in its present form, have any direct voice in the choice of the Council of the University.

7. The metropolitan medical schools respectfully support the proposal for the constitution in London of a university which shall not merely bestow degrees, but shall directly concern itself with the educational affairs and courses of study of the faculties which it represents, and are of opinion that such a university, if properly constituted, will prove of great benefit to the public by raising the standard of knowledge, by developing the educational resources of London, and by encouraging students to make fuller use of the extraordinary means of medical training to be found in the metropolitan hospitals and medical schools. But the metropolitan medical schools submit that the constitution of the university as proposed in the Draft Charter, by failing to provide for the recognition of the metropolitan medical schools as colleges in the university in the faculties of those schools, is unfair to the metropolitan medical schools and defective. The metropolitan medical schools possess far larger opportunities for the study of medicine and surgery than are possessed by any similar institutions in the United Kingdom, and the students at those schools enjoy all the educational advantages which are found at Colleges of Universities. Each of the metropolitan medical schools ought, it is submitted, therefore, to be recognised and admitted as a College of the proposed University in the faculty which the school professes to teach, and admitted into the constitution of the proposed University on terms of equality with University College and King's College, London.

8. The following of the metropolitan medical schools submit that they should in the proposed University be admitted as Colleges in the University in the Faculties of Science and Medicine:—(1) The Guy's Hospital Medical School, (2) the London Hospital Medical School, (3) the St. Bartholomew's Hospital and College, (4) the St. Mary's Hospital Medical School, (5) the St. Thomas's Hospital Medical School. The remaining five of the ten metropolitan medical schools submit that in the proposed University they should be admitted as Colleges in the University in the Faculty of Medicine only.

9. The metropolitan medical schools also submit that in the constitution of the Council of the proposed University they will not (if the Charter is granted in its present form) be adequately represented. They submit that each of the ten schools is entitled to be directly represented on the Council of the University, and that the provisions of the proposed Charter ought to be altered so as to secure for each of the metropolitan medical schools a representative from the school on the Council.

10. The metropolitan medical schools also submit that before the draft of the Charter is approved certain alterations should be made in it in reference to the following matters:—(a) The Charter should provide in clear terms that no medical degree other than an honorary degree shall be conferred on any person who shall not previously have obtained a qualification entitling him under the Medical Acts to have his name entered in the Medical Register. (b) The Charter should also provide that the Council of the University shall have power to deprive of his degree a graduate in medicine whose name has been removed from the Medical Register for infamous professional conduct, or who after due inquiry by the Council has been found guilty of infamous conduct in a professional respect. (c) The provisions for the constitution of the assemblies of the Faculties should be altered as indicated in the schedule to this statement.

11. It is submitted on behalf of the metropolitan medical schools that the name which it is proposed to give to the University should be altered from that of "The Albert University of London" to "The New University for London."

12. In the year 1888, after the petition for the said Charter had been presented to Her Majesty, a petition from the nine first-named metropolitan medical schools was presented to Her Majesty, signed by 201 members of the governing bodies of teachers, praying that the Draft Charter might be altered so as to give to the schools adequate recognition and representation as Colleges in the proposed University.

13. The metropolitan medical schools submit, having regard to the important position which they hold in relation to educational teaching in science and medicine in the metropolis, and to the fact that the proposed University is to have power to confer degrees in the Faculties taught in the schools, that they ought to be heard, and they pray that they may be heard by counsel at the bar of the Privy Council or Committee of the Council in support of their objections to the provisions of the Draft Charter above referred to, and that disapproval of such provisions may be signified and such amendments made in the Charter as to Her Majesty in Council may appear just.

Dated the 22nd day of June, 1891.

CASE AND REASONS OF THE MASTER, WARDENS, AND SOCIETY OF THE ART AND MYSTERY OF APOTHECARIES OF THE CITY OF LONDON, IN SUPPORT OF THEIR PETITION THAT THE ABOVE-MENTIONED CHARTER MAY NOT BE GRANTED EXCEPT WITH CERTAIN MODIFICATIONS.

1. The above-mentioned Society of Apothecaries submits the following facts and reasons in support of their petition that the said Charter should not be granted except as modified in the particulars set forth in the said petition.

2. Before the Medical Act, 1886, the said Society could only give a qualification entitling the registered holder to practise in medicine, and one of the objects of that Act was to enable the said Society, by extending its examinations, to give a wider qualification. Under that Act there is no distinction made between the said Society and the Royal Colleges of Physicians and Surgeons, so far as regards the power of conferring a qualification entitling the holder to be entered on the Medical Register, and the diploma of the said Society entitles the holder to practise surgery and midwifery as well as medicine. Under the Medical Acts, the said Society is represented by one member in the General Medical Council equally with the Royal Colleges.

3. The Royal Colleges have amalgamated, and have appointed a joint board of examiners for their diplomas. The said Society, being unable to combine with any other medical corporation, applied to the General Medical Council for the appointment of assistant examiners under the Medical Act, 1886, and five such examiners (Fellows of the Royal College of Surgeons) have been duly appointed. The said Society has conducted its examinations with the assistance of such examiners, and its examinations are such as guarantee the possession by its Licentiates of the knowledge and skill requisite for the efficient practice of medicine, surgery, and midwifery, and were pronounced to be so by the late Professor Marshall the President of the General Medical Council, in his evidence given before the committee appointed to inquire into the Army Medical Service.

4. Ministerial warrants have been recently issued declaring that the diploma of the said Society, equally with those of the Royal Colleges, shall entitle the holders thereof to compete for appointments in the Army, Navy, and Indian Medical Services.

5. The number of candidates for the said Society's diploma is steadily increasing, and is likely further to increase now that the appointments aforesaid are open to them. The Licentiates of the said Society number upwards of 10,000, the majority of whom are general practitioners, and practise both medicine and surgery. The diploma of the said Society costs much less than that of any other medical corporation, and enables young men to obtain more speedily a qualification entitling them to practise, and is in that respect (as was stated by Professor Marshall in his evidence before mentioned) of great importance to the medical profession and the public.

6. The said Society recognises the need in London of a body competent to grant medical degrees on conditions less restrictive and prohibitive than those required by the University of London, but submits that as the faculty of medicine is one of the most important features of the proposed new University, and will exercise a powerful influence on the medical schools of education in London, the said Society, as one of the London bodies competent to grant a qualification to practise, ought to have a voice in the management of the teaching and examinations of that faculty, and should be adequately represented in the Council, and on the Board of Medical Studies of the University.

7. The said Society and its diploma have been treated by the Medical Acts in every respect as on an equality with the Royal Colleges and their diplomas, and should have representation in the said Council and Boards of Medical Studies equal to that of each of the Royal Colleges. If the Royal Colleges alone are represented, the said Society will be prejudiced, and lose prestige.

8. The Licentiates of the said Society form a large class of the medical profession, many of whom now obtain further diplomas from other bodies, and would in the future seek to obtain the degree of the new University; and it is submitted that a scheme excluding the said Society from all influence in the teaching and examining boards of the Faculty of Medicine would be illiberal, and so imperfect as seriously to impair their efficiency.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Ormskirk Rural District.—Dr. Wilfred Fletcher gives last year's death-rate for this district as 14·3 per 1000 living. Unfortunately, whilst every effort is made to learn the existence of infectious disease in this locality, no attempt at adequate isolation can be made because of the absence of an isolation hospital, and last year, in Scarisbrick alone, there were no less than forty attacks of diphtheria and croup. In connexion with this outbreak Dr. Fletcher makes some valuable suggestions on the question of school-closure and on exclusion of scholars as two alternative methods of restricting the spread of disease by so-called school influence. Indeed, the report gives evidence that the whole subject of infectious disease in relation to elementary education has received the thoughtful attention of the writer.

Birmingham.—The corrected death-rate for Birmingham, according to the pre-census estimate of population, was 21·7 per 1000; this gives an increase over recent years, and it is due largely to scarlet fever and measles. The scarlet fever epidemic lasted no less than seven years, and has only now subsided. Infant mortality in Birmingham still compares badly with that in other large towns; it was unusually high last year, reaching to 18·4 (under one year of age) per cent. of the births; but, happily, diarrhœa, associated as it is with local conditions of filth, exhibits a decrease when the decennium 1881–90 is compared with the previous one, and this notwithstanding the fact, which is pointed out by Dr. Alfred Hill, that the average temperature during the summer quarters was higher in the latter than in the former period. One of the most flagrant evils in Birmingham has been the old midden-closet system, and we hope soon to learn that the last vestige of this barbarism has disappeared. Happily, great progress is being made in this direction, and a further step is indicated by the use of an automatic flush closet, in which the waste and slop-water are retained, and then tilted bodily down the drain at the foot of the closet, this special form of closet having been constructed under Dr. Hill's directions. Indeed, these automatic contrivances would appear to be a success for towns where sufficient sudden flush with waste water can be ensured. Some excellent charts are appended to Dr. Hill's reports; but there is as yet none showing the distribution of preventable disease apart from fatal attacks. The volume is one which is worthy of an index or of a comprehensive table of contents.

Halifax Urban District.—The death-rate for 1890 is estimated as 22·3 per 1000, the zymotic rate at 1·27, and the infantile rate per cent. of births as 17·3. The working of the Goux closets is not altogether satisfactory, although no reflection is intended as regards the system itself; but Mr. Ainley very properly condemns the contract system of scavenging for such a borough as Halifax. The borough hospital, it is stated, works favourably in the way of preventing the spread of infection, and an account is given in an appendix of the current sanitary work carried out during the past year.

Stretford Urban District.—On a provisional estimate of population amounting to 21,000, Mr. W. J. Heslop gives the death-rate as 16·8 per 1000, and he shows in a tabular form how great a diminution has taken place within recent years as compared with a period of some twenty years ago. The number of notified cases of infectious disease was 97, and an account is given of the action taken to prevent the spread of infection, but no reference is made as to removal to an isolation hospital. The provision of a public disinfecting apparatus, the revision of the building by-laws, and the extension of the system of automatic flushing closets are the three points to which attention is mainly directed as regards the future.

Poole Urban District.—Assuming the estimate of population for Poole to be correct, the death-rate during 1890 was 14·7 per 1000. In considering the cases of infectious diseases, Mr. Herbert Lawton points to the need for compulsory notification, and he explains the action taken as to isolation in hospital and disinfection. He strongly urges the revision of the existing faulty by-laws, and the preparation of some altogether new codes. Few things do more permanent damage to a town than that perpetuation of faulty sanitary conditions as to buildings, drains, &c., which almost invariably ensues where efficient by-laws are not in operation.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

In twenty-eight of the largest English towns 5552 births and 3680 deaths were registered during the week ending June 27th. The annual rate of mortality in these towns, which had declined in the preceding four weeks from 30·9 to 23·1 per 1000, further fell last week to 20·4. The rate was 19 in London and 21·6 in the twenty-seven provincial towns. During the first twelve weeks of the current quarter the death-rate in the twenty-eight towns averaged 26·9 per 1000, and considerably exceeded the mean rate in the corresponding periods of the ten years 1881–90. The lowest rates in these towns were 16 in Cardiff, 16·8 in Birkenhead, 17·6 in Portsmouth, and 17·8 in Bradford; the highest rates were 24·1 in Plymouth, 26·8 in Liverpool, 27·8 in Leicester, and 28·3 in Wolverhampton. The deaths referred to the principal zymotic diseases, which had been 313 and 325 in the preceding two weeks, further rose last week to 339; they included 117 from whooping-cough, 72 from measles, 64 from diarrhœa, 36 from diphtheria, 26 from "fever" (principally enteric), 24 from scarlet fever, and not 1 from small-pox. These diseases caused the lowest death-rates last week in Birkenhead, Brighton, Norwich, and Halifax; and the highest rates in Portsmouth, Leicester, Liverpool, and Bradford. The greatest mortality from measles occurred in Hull, Sunderland, Leicester, and Bradford; from scarlet fever in Bradford; and from whooping-cough in Manchester, Leeds, Liverpool, and Salford. The mortality from "fever" showed no marked excess in any of the twenty-eight large towns. The 36 fatal cases of diphtheria included 31 in London and 2 in Hull. No death from small-pox was registered last week in any of the large towns; 3 small-pox patients were under treatment in the Metropolitan Asylum Hospitals, and one in the Highgate Small-pox Hospital, on Saturday last. The number of scarlet-fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital at the end of the week was 891, against 859 and 872 at the end of the preceding two weeks; the patients admitted during the week were 76, against 61 and 88 in the previous two weeks. The deaths referred to diseases of the respiratory organs in London, which had declined in the preceding six weeks from 620 to 439, further fell last week to 291, but were 82 above the corrected average. The causes of 67, or 1·8 per cent., of the deaths in the twenty-eight towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Portsmouth, Wolverhampton, Sunderland, Cardiff, and in five other smaller towns; the largest proportions of uncertified deaths were recorded in Salford, Liverpool, and Newcastle-upon-Tyne.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had declined from 25·2 to 23·2 per 1000 in the preceding three weeks, further fell to 21·8 during the week ending June 27th, but exceeded by 1·4 the mean rate that prevailed during the same period in the twenty-eight large English towns. The rates in the eight Scotch towns ranged from 6·8 in Perth and 18 in Dundee to 22·5 in Aberdeen and 25·5 in Glasgow. The 561 deaths in these towns showed a decline of 36 from the number in the preceding week, and included 19 which were referred to whooping-cough, 18 to measles, 15 to diarrhœa, 9 to scarlet fever, 7 to "fever," 1 to diphtheria, and not one to small-pox. In all, 69 deaths resulted from these principal zymotic diseases, against 79 and 67 in the preceding two weeks. These 69 deaths were equal to an annual rate of 2·7 per 1000, which exceeded by 0·8 the mean rate from the same diseases in the twenty-eight English towns. The fatal cases of whooping-cough, which had declined from 25 to 19 in the preceding three weeks, were again 19 last week, of which 8 occurred in Glasgow, 4 in Edinburgh, and 4 in Greenock.

The deaths referred to measles, which in the previous three weeks had declined from 27 to 24, further fell last week to 18, and included 12 in Glasgow and 4 in Edinburgh. The 15 fatal cases of diarrhœa showed an increase upon recent weekly numbers; 8 occurred in Glasgow and 4 in Edinburgh. The 9 deaths from scarlet fever exceeded by 6 the number in the preceding week, and included 6 in Glasgow. The fatal cases of "fever," which had increased in the previous three weeks from 3 to 6, further rose last week to 7, of which 4 occurred in Glasgow. The death from diphtheria was recorded in Leith. The deaths referred to diseases of the respiratory organs in these towns, which had been 139 and 143 in the preceding two weeks, declined again last week to 127, but were 39 above the number in the corresponding week of last year. The causes of 61, or nearly 11 per cent., of the deaths in the eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 27 and 25·1 per 1000 in the preceding two weeks, further declined to 17·9 during the week ending June 27th. During the first twelve weeks of the current quarter the death-rate in the city averaged 23·9 per 1000, the rate for the same period being 24·4 in London and 21 in Edinburgh. The 121 deaths in Dublin during the week under notice showed a decline of 49 from the number in the preceding week, and included 3 which were referred to whooping-cough, 1 to "fever," 1 to diarrhœa, and not one either to small-pox, measles, scarlet fever, or diphtheria; in all, 5 deaths resulted from these principal zymotic diseases, against numbers increasing from 3 to 10 in the preceding three weeks. These 5 deaths were equal to an annual rate of 0·7 per 1000, the rate from the same diseases being 1·8 in London and 2·6 in Edinburgh. The fatal cases of whooping-cough, which had been 3 and 1 in the preceding two weeks, rose again to 3 last week. The deaths referred to "fever," which had increased in the previous three weeks from 1 to 4, declined again to 1 last week. The 121 deaths in Dublin last week included 12 of infants under one year of age and 37 of persons aged upwards of sixty years; the deaths both of infants and of elderly persons showed a marked decline from those recorded in recent weeks. Six inquest cases and 4 deaths from violence were registered during the week, and 41, or more than a third, of the deaths occurred in public institutions. The causes of 8, or nearly 7 per cent., of the deaths last week in the city were not certified.

THE SERVICES

ARMY MEDICAL RESERVE OF OFFICERS.—Surgeon-Major (ranking as Major) John Lewis William Ward, having resigned his Volunteer appointment, ceases to be an Officer of the Army Medical Reserve of Officers (dated June 27th, 1891).

NAVAL MEDICAL SERVICE.—The following appointments have been made at the Admiralty:—Surgeons: Jonathan Shand, M.B., to the *Lapwing* (dated June 26th, 1891); Samuel W. Johnson, M.B., to the *Buzzard*, and Harold F. D. Stephens to the *Mistletoe* (both dated June 18th, 1891); Reginald T. A. Levinge to the *Aurora* and Horace B. Marriott to the *Hotspur* (both dated June 27th, 1891); Mr. Henry J. C. Godfrey to be Surgeon and Agent at Bridlington Quay (dated June 27th, 1891).

VOLUNTEER CORPS.—1st Volunteer Battalion, the Royal Welsh Fusiliers: Surgeon and Surgeon-Major (ranking as Lieutenant-Colonel) J. R. Jenkins resigns his commission; also is permitted to retain his rank, and to continue to wear the uniform of the Battalion on his retirement (dated June 27th, 1891).—2nd Volunteer Battalion, the Durham Light Infantry: Reginald Kœttlitz, Gent., to be Acting Surgeon (dated June 27th, 1891).—2nd (Herts) Volunteer Battalion, the Bedford Regiment: Surgeon and Surgeon-Major (ranking as Lieutenant-Colonel) A. T. Brett, M.D., resigns his commission; also is permitted to retain his rank, and to continue to wear the uniform of the Battalion on his retirement (dated June 13th, 1891).

VOLUNTEER MEDICAL STAFF CORPS.—The Maidstone Division: Acting Surgeon Charles Pye Oliver, M.B., to be Surgeon (dated June 27th 1891).

Correspondence.

"Audi alteram partem."

NATURE AND NAME OF INFLUENZA.

To the Editors of THE LANCET.

SIRS,—I readily admit the justice of Dr. Egerton FitzGerald's criticism when he says I have gone too far in limiting the special effect of influenza to its central nervous system. These centres are, I believe, chiefly involved; but the nerve endings, their active outposts probably, do not altogether escape, and, by becoming more irritable, exaggerate the effect of the unstable and usually depressed condition of the nerve centres. That passive part of the nervous system, the nerve fibres, there is no reason to suppose plays any essential part in the disease. But when Dr. FitzGerald attributes the prostration characteristic of influenza to the effect produced upon the nerve centres by local irritation, I part company with him. Not only do symptoms which are usually attributed to a morbid condition of the nerve centres occur in a large proportion of cases without any signs of peripheral irritation, but also where the latter do make their appearance they are always second in time to the development of the central symptoms. I agree also with Dr. FitzGerald in his doubts as to the inflammative nature of the condition of the chest occurring in influenza, which he compares to urticaria.

I refer to those cases where we get dulness, crepitations, perhaps tubular breathing, with increased vocal resonance and renal fremitus, such a case clearing up rapidly without expectoration. The physical signs in this case point merely to congestion of the lungs with effusion into the pleura and small air passages, and the course taken by the disease confirms such a view of the condition. Nevertheless, these cases are often spoken of as complicated with pneumonia. Of course these signs sometimes indicate an early stage of pneumonia, and pneumonia often supervenes upon the condition described above; but then the ordinary course of pneumonia occurring in a specific fever is gone through. In this relation history is interesting. Pre-microscopic pathologists had at least one advantage over present observers in the fact that bloodletting often gave them an opportunity of examining disease in an early stage. Now, Graves, quoting Green in 1837, says that post mortem the pneumonia of influenza was seldom found advanced beyond the first stage. Recent experience would be best expressed by saying, although pneumonia occurring in influenza is often associated with extensive congestion of lung tissue and pleural effusion, yet the latter condition is seldom seen post mortem without some amount of pneumonia in the second or third stage. The admission of the nerve periphery to a leading part in the disease makes the name "centro-neural fever" unsuitable. I would now suggest "neurotic fever," the name being taken to indicate a specific fever, differing from other such disorders in the extreme prominence of various neuroses dependent upon the early and severe action of the poison upon the different active parts of the nervous system.—I am, Sirs, yours faithfully,

London, June 30th, 1891. THOS. GLOVER LYON.

MUSIC IN ILLNESS.

To the Editors of THE LANCET.

SIRS,—I beg leave to submit a question through your columns to the leaders in the medical world—viz., Whether soft low music might not be used with advantage as a curative assistant in a considerable number of cases of illness, more particularly those in which the nerves are specially concerned? The lulling effect upon young children of melodies softly sung has been acknowledged in all ages; and the lulling influence of a certain class of music upon adults is far greater than is generally supposed.

Five years ago I had an opportunity of trying the effect of dreamy music upon a lady of great intellectual power who retained all her faculties at the ripe age of eighty-six. About seven minutes were occupied by the music; and before its last notes were heard my revered friend, the late Viscountess

Combermere, had closed her eyes and was napping. There are still living persons who were present on that occasion, and can attest the fact that very strong drowsiness, if not actual sleep, was then obtained; furthermore, if any recognised scientists amongst your readers desire to see this experiment repeated upon other patients, I shall be happy to arrange for the same music to be played by the same players upon the same instruments (muted violin and pianoforte), provided only that the patients are not informed of the nature of the experiment about to be made upon them. But it is not chiefly on account of the somniferous power, in which it is probably inferior to sleeping draughts, that I venture to advocate the assistance of music, but rather because it is a means which tends very generally to produce ease of mind and feeling of contentment. Few will deny that troubles affect the mind greatly during illness; and the best and only permanent means of quelling the restlessness that accompanies trouble is to induce confidence in the power, wisdom, and goodness of Almighty GOD. The remembrance of sacred sentences from the Psalms or New Testament proves at such times of the greatest comfort; and if these sentences are expressed in soft anthem-like music, they appeal to the heart with greater power than if only spoken. A quarter of an hour's communion with pious thoughts and peaceful sounds will help to draw the mind of a sufferer away from the present moment, and will make him forget pain. But, supposing that there is no sense of Religion in the patient, we may still consider music to be a useful assistant in certain classes of illness; and in confirmation of this view I would appeal to articles in THE LANCET, which I have seen to-day for the first time, one of these being dated April 25th of this year, and headed "Music as a Remedy"; the other dated May 23rd, and headed, "Music in the Treatment of Disease."

If it may be assumed that the opinions put forward in these articles are in the main correct, and that music possesses the virtue here attributed to it, the question arises: How can we apply it so as to become of practical value to a large number of the community? The answer to this is clear enough. Let a large number of lady vocalists and violinists (of either sex) be enrolled who would be content to be formed into a regular society under a governing body or council. Let there be in all great cities of the kingdom centres or habitations, say twenty in our enormous metropolis, and six, or four, or two in the provincial towns, according to their size and population. Over each of these centres there should be a paid official—viz., a lady directress—who would be in communication with ten or twelve vocalists and half that number of violinists. A message sent from a physician to a directress would summon three of the aforesaid musicians to be at a given place at a given time, and they might be on the spot after a few hours at the most, when all things are in working order. Certain rules ought to be strictly observed—viz., that the music be played in a room adjoining that of the patient and not in the sick room; that the patient be never, on any pretext whatever, seen or spoken to, since all suspicion of "visiting" must be kept apart from this mission of music. The violins should always be muted, the musicians should be always unseen, and their names unknown. It may be said that although the system now advocated is new to the present generation, music was effectively applied for healing purposes 3000 years ago; and a friend tells me that H.R.H. the late Duchess of Cambridge derived during illness much benefit from the playing of Signor Tosti. One reason why music is never prescribed in modern times is clear—viz., that physicians in general do not know where to find competent artists prepared with music specially suited for the nerves of sufferers. These artists (of whom there must be thousands), as well as the lady directresses (of whom there must be hundreds), must one and all be paid for their services, and double fees should be allowed for music played between 12 P.M. and 7 A.M. The cost, therefore, of establishing such a system would be enormous, at all events for a time, and until the plan might be made to pay its own expenses. Many thousands must be expended. Still, if the benefit of utilising music be allowed by a committee formed of some chief physicians of Great Britain, those thousands would soon be forthcoming. Experiment would be made at first upon a select number of patients; and a few months' trial would probably suffice to show how much respite from suffering could be obtained from the application of that Divine Art which—next to Religion—seems given to man for the purpose of ridding his bosom of that perilous stuff that wars against the soul.

I am, Sirs, obediently yours,

Dean's-yard, Westminster. FREDERICK K. HARFORD.

P.S.—I ought to add that, since writing the above letter, Miss Florence Nightingale has expressed her full concurrence with the objects of the Mission of St. Cecilia, and wishes it God-speed; also that I shall be happy to answer letters received from any of your readers who desire to assist in setting on foot this proposed mission.

*** The fact that music is capable of acting as a sedative in certain nervous conditions and as a stimulant in others is generally admitted. Its soothing property would no doubt be appreciably enhanced by the use of muted instruments, and its total efficiency by the employment of skilled performers. As regards the advisability of instituting a musical mission or guild for the treatment of illness, however, we must speak with some reserve. It must be remembered that the function of this pleasing art is in most cases quite subsidiary, and its effects are merely temporary.—ED. L.

TETANY IN DILATATION OF THE STOMACH

To the Editors of THE LANCET.

SIRS,—The following notes taken from my case-book may be of interest in connexion with the series of cases recorded by Dr. Collier in THE LANCET for June 6th:—"On July 31st last I was sent for into the country to see a man aged forty-eight who was said to be suffering from lock-jaw. I found nearly every voluntary muscle in the body rigid. The limbs were the most affected, and were in a condition of general flexion, accompanied by severe pain, increased by any attempt at extension. The hands were clenched, the jaw was firmly set, and there was partial rigidity of the abdominal and thoracic muscles, especially the former. Breathing was rapid, shallow, and difficult, the face was cyanosed and the expression agonised. This condition, which was slightly relieved by inhalation of chloroform, and by rubbing the affected muscles, lasted about an hour, and then gradually passed off. On examination I then found the stomach to be much dilated. The contents which had been vomited were frothy, and had an extremely acrid odour and acid reaction. There was a history of attacks of vomiting for some months past, accompanied by loss of flesh. There was also a history of alcoholic excess." I had no means at hand of washing out the stomach, so ordered full doses of soda and bismuth, and regulated the amount of stimulant. I also gave a hypodermic injection of one-third of a grain of morphia. The patient had several similar attacks during the next forty-eight hours, but of lessening severity, and finally he recovered. I attributed the muscular cramps to the extremely acrid condition of the contents of the stomach, and imagined that some abnormal product of this acrid fermentation had been absorbed from the stomach and was acting as a direct poison. This direct action was probably increased by the irritation of the gastric contents on the mucous membrane of the stomach acting reflexly.

I am, Sirs, yours truly,

Nuneaton, June 13th, 1891. E. N. NASON, M.B. Camb.

"CAN INJURY PRODUCE LOBAR PNEUMONIA?"

To the Editors of THE LANCET.

SIRS,—In a courteous letter I have received from Dr. Pye-Smith he directs my attention to the fact that for the paragraph I quote in my paper on the above subject from the second edition of Fagge's Medicine (vol. ii., p. 142) the late Dr. Hilton Fagge is not responsible, as it is the recorded belief of Dr. Pye-Smith himself. A comparison of the chapters on pneumonia in the two editions reveals a notable difference in the expression of opinion as to the nature of traumatic pneumonia, and I regret that when dealing with the subject this should have escaped me. Practising as I now do in Cannes, books of reference are not so numerous as they were in Carlisle, hence the omission. To the opinion of Dr. Pye-Smith, so frankly and so ably expressed, and to the great weight attaching to it, was in a measure due my endeavour to deal with the matter, and I therefore con-

sider it best that I should not only acknowledge this here, but in doing so point the lesson that the literary monument of the great clinician Fagge is being added to and rendered more valuable by the wise and decidedly expressed opinions of its present editor.

I am, Sirs, yours faithfully,

JOHN A. MACDOUGALL.

Arin, North Berwick, July 1st, 1891.

"EUCALYPTUS OIL IN THE TREATMENT OF SCARLET FEVER."

To the Editors of THE LANCET.

SIRS,—The trial which I gave to eucalyptus oil in the treatment of scarlet fever, referred to by Mr. Curgenven in your last issue, was made not with a view of illustrating any particular "method" of treatment, but solely to test the efficacy of the drug. Therapeusis is, I am convinced, never less fortunate than when reduced to a method. My results denoting the uselessness of this remedy when given internally, and as a direct application to the lesions of the disease, leave me sceptical as to the probability of having obtained better results if the oil had been in addition applied to the skin on the method recommended by Mr. Curgenven. The field of good result anticipated when it was suggested to adapt advantages of antisepsis from the domain of surgery to the uses of medicine is still, unfortunately, barren; and whatever the value of eucalyptus oil as an antiseptic may be, as a curative agent in scarlet fever it possesses, so far as my experiences go, no value whatever.—I am, Sirs, yours faithfully,

C. KNOX BOND.

City of Liverpool Fever Hospital (South), June 30th, 1891.

BONE ABSCESS.

To the Editors of THE LANCET.

SIRS,—May I be permitted to comment on a small but not unimportant point in the article by Mr. W. H. Battle on bone abscess? He quotes Case 3 as an example of that rare disease—abscess of the shaft of the tibia. But I think he will probably agree that *in its origin* it did not belong to this class. Note the following points. The patient was twenty-two years of age, the disease began when he was sixteen; the swelling was at first over the "upper part" of the tibia, and even six years later was in the upper third. The tibia grows most rapidly at the upper epiphysis. So that a small juxta-epiphysial abscess would, in the natural sequence of events, be found separated by the subsequently added portion of the shaft from the epiphysial line. Some cases illustrating this have been published by me in the *Edinburgh Medical Journal* of January last. I have found sequestra in the substance of the shafts of the femur and humerus, as well as of the tibia, which were seen at once by their shape to have been originally in connexion with the epiphysial line. It is difficult to exaggerate the part played by the juxta-epiphysial region in inflammatory bone disease other than specific periostitis.

I am, Sirs, yours faithfully,

Kashmir Mission Hospital. ARTHUR NEVE, F.R.C.S. Edin.

LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

Death from Lightning.

ON June 25th Liverpool was visited by one of the most severe thunderstorms which has been witnessed for more than twenty years. One very sad fatality occurred. While the storm was at its height there was in the river Mersey, about half-way between the Lancashire and Cheshire sides, a boat containing three men, part of a steam tug's crew. One of them was struck by the lightning and killed instantaneously. The electric fluid passed from the inside of the calf of his right leg up the thigh into his body, tearing his trousers to shreds. The two other men escaped, adding one more to the many marvellous illustrations of the uncertainty with which lightning acts.

A Juror Teaching a Legal Coroner the Law on Oaths.

At an inquest held recently at St. Helens by Mr. Husband, solicitor and deputy coroner, a juryman objected to take the oath on the ground that he had no religious belief. The coroner at first expressed an opinion that the juror could not affirm as he claimed, and a solicitor present supported the coroner. But a reference to the Act of Parliament showed that the juror was right and both lawyers wrong.

Two Remarkably Sudden Deaths.

A coalheaver, aged forty, who suffered from heart disease, returned home to find that his wife had unexpectedly died during his absence. He dropped down dead beside his wife's body.—A Liverpool captain, somewhat advanced in years, went into a Birkenhead beerhouse, sat down on a chair without speaking to anyone, immediately fell forwards upon the floor, and when picked up was found to be dead. Sudden deaths are somewhat frequent in very hot weather, and, in so large a community as that of Liverpool, occur with almost painful frequency. Most if not all are reported to the coroner, but inquests are only held in those cases in which circumstances render a public inquiry desirable. The irksome and somewhat frequent calls upon householders to serve as coroner's jurors have been the subject of some recent complaints before the county coroner. In cases of adjourned inquest occupying two or more days the city coroner excuses jurors from further calls for some time.

Influenza and the Liverpool Workhouse.

When the influenza was at its height a number of the officers of the Liverpool Workhouse were attacked with it as well as the pauper inmates. At the last meeting of the Workhouse Committee on June 25th it was stated that the influenza had entirely disappeared from the workhouse, not a single case being reported that morning.

The Liverpool Death-rate.

At the last meeting of the Health Committee on June 25th the medical officer of health reported that the number of deaths registered in Liverpool during the week ending June 20th was 291, an increase of 26 on the corrected average, and 33 more than in the corresponding week of last year, the total rate being equal to 29·3 per 1000 of the estimated population. Under the Infectious Diseases Notification Act there were reported 20 cases of scarlatina, 7 removed to hospital; 2 of fever, 1 removed to hospital; 1 of diphtheria, and 6 of erysipelas, none of which were removed to the hospital. In addition to these the medical officer had notice from other sources of 38 cases of measles, 4 of which were removed to hospital. There were under treatment in hospital for the week ending June 20th: Typhus fever 1, typhoid fever 22, scarlatina 45, diphtheria 2, small-pox 2—a total of 72. There were 23 cases of measles in the hospital of the Liverpool Workhouse.

Liverpool, June 30th.

BIRMINGHAM.

(FROM OUR OWN CORRESPONDENT.)

Influenza and the Death-rate.

THE diminution of the high death-rate is a matter of congratulation, and must be attributed in a great measure to the improvement in the weather. Last week the death-rate was 23·5, the deaths from influenza numbering 18, and those from other diseases of the respiratory organs 49. In the weeks ending May 30th and June 6th it was as high as 38·1 and 38·2 respectively, with a proportionate number of influenza cases. The high mortality is much greater than any records of recent years, though many towns have been alike influenced by the dire epidemic which has prevailed for so long in our midst.

Reformatory and Industrial Schools Association.

The annual conference of this association was recently held in this city, and much interesting material was brought under notice. It is worthy of comment that forty years ago the system of dealing with juvenile offenders by sending them to reformatories or to industrial schools had its origin in Birmingham. It was shown that the wisdom of this plan has been justified in the fact that out of some 45,000 young persons discharged from reformatories during the thirty-five years, nearly 80 per cent. returned to honest paths of life. The industrial schools were reported by the secretary to show even better results. Of the 64,000 children passing through these schools, only some 3000 fell again into

the hands of the police. These excellent results speak well for the practical benefit obtained from this kind of supervision, and compare most favourably with the social evils prevalent at a previous epoch from juvenile depravity and wickedness of various kinds.

Birmingham, July 1st.

NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

Durham University.

A CONVOCATION was held last Tuesday by the University of Durham for the purpose of conferring degrees. The preliminary uproar of the undergraduates was in much evidence, but was characterised by a total absence of wit, and the fun (so-called) would scarcely make a schoolboy laugh. Several distinguished persons received degrees—bishops, professors, and theologians—but the graduation of Dr. Armstrong, medical officer of health for Newcastle, was highly popular. Dr. Philipson, in a graceful speech, on presenting Dr. Armstrong, said: "This distinguished sanitarian has rendered much valuable service to the University in his position of Lecturer on Public Health in the University of Durham College of Medicine at Newcastle-upon-Tyne and as an examiner in Public Health in the University. He was author of several able and important contributions on hygiene and demography. He was one of the pioneers in the practical application of sanitary science in the preservation of the health of the community."

A New Durham Charity.

The will of the late Mr. Thomas Hutton, who was formerly a bookbinder in the city of Durham, provides that his personal property shall be realised, and the proceeds invested by the Dean and Chapter for what shall be known as the "Hutton Charity." The income arising from the fund is to be distributed annually to deserving poor not under sixty years of age, *bonâ-fide* residents in the village of Shincliffe. The distribution is to be made (under certain conditions) on July 8th, the date of the testator's birth.

Ophthalmic Work in Newcastle.

The biennial report of the Newcastle Eye Infirmary has just been issued, and shows the large amount of work done in this old, but progressive institution. Since the last report 206 operations for cataract have been performed, while the number of out-patients has exceeded 6000. I regret to note, however, that there is a deficit of nearly £80 in the financial year.

North Shields and Tynemouth Dispensary.

The North Shields and Tynemouth Dispensary is one of the oldest medical charities in Northumberland, having been established in 1802. During the past twelve months 7732 patients in all have been attended. It is remarkable, however, with all this work, the finances of the charity are badly kept up, for in the year 1827, when the population of the borough was little over 20,000, the number of subscribers was 138 and the subscriptions amounted to £195; at the present time the population is over 46,000, but the number of subscribers is only 85 and the amount subscribed is only £126, being about £70 less than it was sixty years ago.

Influenza in the Whitehaven District.

I hear that influenza is very prevalent in the Whitehaven district. At Frizington a large number of people have been attacked by the malady in its severest form, and several workings in the coal mines are stopped in consequence of the illness of the men.

Barber Surgeons of Newcastle and Irregular Practice.

The following is extracted from Dr. Embleton's interesting paper lately read before the Newcastle Society of Antiquaries, and shows more than 200 years ago irregular practice was not lightly passed over: "15 June, 1663, Edward Cramling, for imploying and practising with Richard Mannel, a forriner, for which he is fined the sum of forty shillings."

Sunderland and the Asylum Question.

The Local Government Commissioners in London, with reference to the recent inquiry before them concerning the rights of the Durham County Council and the Sunderland County in the lunatic asylum at Sedgefield, have decided to support the contentions of the Sunderland Corporation, and the general result is considered by the Sunderland people as a victory all round. The amount fixed as compensation to Sunderland is £34,000. The Sunderland authorities are to have the use of Sedgefield for a sufficient time to enable them—should they so decide—to build an asylum for their own borough.

A "Guardian's" Surgery.

At a late meeting of a North Yorkshire Board of Guardians one of its members (scanning the list of extras where a charge was made by the medical officer for reducing a dislocation of the forearm) *loq.*: "Here's these extras. I wonder how old she was." (Voice: "Between seventy and eighty.") "What's the use of spending a sovereign to set a poor woman's arm right?" The chairman remarked it was worth the while if it had cost £5. The guardian, however, remarked "he wished they could get the work done by some of their servants," and moved "that the charge was extravagant, and that they ought to do without those confounded extras." The motion, however, was not seconded.

Newcastle-on-Tyne, July 1st.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

Draft Ordinances by the Scottish Universities Commissioners.

TWO draft ordinances have been issued by the Commissioners bearing upon medical education, of which the following is a summary. The first ordinance deals with the general regulations as to examinations. As regards the preliminary examinations, it is only necessary to indicate the points bearing upon the medical preliminary or entrance examination. This examination is to be held simultaneously at all the Scottish Universities in the months of February or March and September or October, and provision is made for making the standard adequate and uniform. The standard shall correspond as nearly as may be to that of the higher grade, leaving certificates of the Scottish Education Department in French and German, and to that of the second grade in Latin, Greek, and English; and the standard in mathematics shall be the same as that of the elementary mathematics in the preliminary examination in arts. As regards the examinations for graduation, the court is required to make such provisions as will ensure that every candidate shall be examined in each subject by at least two examiners, one of whom shall not be a professor or lecturer in the University. The second ordinance bears upon degrees of medicine in Edinburgh. It ordains that four degrees shall be conferred—viz., M.B., Ch.B, M.D., and Ch.M. The University may also confer diplomas in special branches of medical and surgical practice on graduates of the University in medicine and surgery. The Preliminary Examination shall include English, Latin, elementary mathematics, and Greek, or French, or German. Candidates whose native language is not English may take their native language instead of French or German, and an examination in any other classical language for one in Greek or Latin. A degree in arts exempts from the Preliminary Examination. Among the more important conditions which must be fulfilled before a candidate can obtain the degrees of M.B. and Ch.B. are—1. That he must have been engaged in medical study for at least five years. 2. In each of the first four years he must have attended two courses in the necessary subjects of study of from five to six months each, or one such course along with two courses, each extending over a session of three months. Candidates who have a degree in science or arts, in which the examinations included physics, chemistry (including practical), botany, and zoology, are exempted from the first year of study. During the fifth or final year he shall be engaged in clinical study for at least nine months at the Royal Infirmary, Edinburgh, or at some public hospital or dispensary as may be recognised by the University Court. 3. As regards the subjects of study, the only addition is physics, including the dynamics of solids, fluids, and gases, and the rudiments of heat, light, and electricity. It is left with the Senatus to determine from time to time the number of meetings of which such courses shall consist, and it shall be open to the professors or lecturers to determine, under the sanction of

the Senatus, what proportion of the courses shall be devoted to lectures, practical demonstrations, examinations, and tutorial work respectively. 4 The candidate must have attended for at least three years the medical and surgical practice of a recognised hospital. 5. He must have attended clinical surgery during courses of not less than nine months, and these courses shall consist of regular instruction at the bedside, along with at least two clinical lectures a week during six of the nine months. 6 contains similar regulations regarding clinical medicine. 7 makes a course on mental diseases compulsory. 8. The student must attend a course of fifty hours' instruction in practical materia medica and pharmacy, or have been engaged as an apprentice for two years. 9. He must attend the out-practice of a hospital or dispensary for at least six months, and must study fevers, diseases of children, and ophthalmology. 10. He must attend a lying-in hospital for three months, and have attended personally not fewer than twelve cases of labour. 11. He must be instructed in vaccination. 12 A candidate, if he has attended the necessary classes, may present himself for any of the subjects of the first professional examination when he appears for the preliminary, but this is not to exempt him from the first year of his medical studies. 13 Certificates must show that a candidate has not only given regular attendance on his classes, but that he has duly performed the work of the class. As regards places of study, two out of the five years must be spent at the Edinburgh University. Of the subjects of study specified, not less than eight must be taken at the Edinburgh University or some university entitled to give the M.D. degree, or at a college affiliated to such a university. As regards the professors, it shall be their duty so to conduct the course that students may receive sufficient instruction in any one of the subjects by attendance on one course of five or six months or of three months, as the case may be. The conditions for the M.D. degree are that the age be twenty-four or upwards; that the candidate has been engaged, subsequently to having received the degrees of M.B., Ch.B, for at least one year in attendance in the medical wards of a hospital or in scientific work bearing directly on his profession, such as is conducted in the research laboratories of the University &c., or for two years in practice other than practice restricted to surgery. Each candidate shall have to pass an examination in clinical medicine, and in such of its special departments as the Senatus shall determine. He shall further submit a thesis. The degree of Master of Surgery is conferred upon somewhat similar conditions, but the examination is surgical. As regards examination, the University Court is required to make arrangements whereby each candidate shall be examined in each subject by at least two examiners, of whom one shall not be a professor or lecturer in the University. These ordinances shall come into operation at the beginning of the winter or summer session next after approval by Her Majesty.

Public Health Committee of the Edinburgh Town Council.

At a meeting of this committee last week there was discussed a proposal to erect a public mortuary. It had been proposed to erect it in connexion with the present police buildings, and this the medical officer of health objected to from its connexion with the police buildings, and from the crowded state of the locality. He proposed it should be erected on ground attached to the City Hospital. At the same meeting it was reported that since the beginning of May there had been nineteen deaths due to influenza, but in these the disease was complicated by other affections.

The Longmore Hospital for Incurables.

The plans for the enlargement of this hospital have been prepared, submitted to, and approved of by the Dean of Guild Court. The extension consists of the addition of two wards, each to contain fourteen beds. There are in addition the necessary nurses' rooms, lavatories, kitchens, and so forth. The cost is expected to amount to £7000 or £8000. The managers hope ere long to be able to make another similar addition at the other end of the present building, and the hospital performs such philanthropic work that it can hardly be believed there should be any serious difficulty about funds.

Measles in Coatbridge.

The month of June, 1891, should long be remembered in Coatbridge as probably the most fatal in its history since the cholera epidemics of 1847 and 1854. During the past month 168 deaths took place, 84 of them from measles, giving a death-rate of 62 per 1000. Altogether, in June 581 cases of measles were reported. The disease seems to have been of a peculiarly malignant type, frequently resulting in acute lung affection, from which also many deaths took place. In connexion with this epidemic the practitioners of Coatbridge have raised an action against the Town Council for payment of 2*s.* 6*d.* per case for reporting their measles cases, the amount claimed for June being £72 12*s.* 6*d.*

July 1st.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

University of Dublin: Anthropometry.

ON Thursday last the new Anthropometric Laboratory in connexion with the Medical School of the University of Dublin was formally opened by an address by the Rev. Dr. Haughton. The meeting was held in the Anatomical Theatre, and the lecturer explained the nature of the laboratory—the first of its kind in the United Kingdom—and the benefits it will confer upon the public services of the country. The laboratory possesses instruments for taking certain measurements of individuals offering themselves for examination—viz., cranial length, breadth, and height; breadth and length of face; height; span of extended arms; weight; grasping power of each hand; speed and strength of blow; breathing capacity; colour sense; keenness of sight; and perception of high musical notes. The apparatus employed is necessarily of a complex character, and towards the expense the Royal Irish Academy has contributed a sum of £100, and is expected to grant a similar sum next year. A record of the age and particulars of parentage of each individual offering himself for examination will also be taken, and his occupation, if a student, will be noted. By a series of these measurements, it is hoped that racial characteristics, so far as they are indicated by the dimensions in question, will be obtained. Dr. Haughton, in his remarks, alluded specially to "colour sense," which involved most important consequences; and stated that from 20 to 25 per cent. of men were colour blind, and were consequently unfit to be sailors and engine drivers; and, according to the authority of Lord Wolseley, about one-third of the soldiers in the army were unsuitable to act as signalmen where colours were important. He also alluded to the importance of "thumb marks" as identifying individuals, and at the termination of the address the modes of application of the different apparatus were exhibited to those present. Anthropometry has been of use in determining our knowledge of the inhabitants of various countries in prehistoric times, chiefly by the accurate skull measurements of crania found in tombs of remote ages; while anthropometry as applied to criminal statistics has been of considerable service, and is much utilised by our continental neighbours. Last week, at the summer commencements, various degrees in medicine and surgery &c. were conferred, and amongst others Prince Edward of Saxe-Weimar, Lord Ardilaun, Lord Iveagh, and the Attorney-General received the honorary degree of Doctor of Laws; and Drs. Reynolds, Cunningham, and Purser the degree of Doctor in Science *honoris causâ*.

Railway Accident: Prompt Aid by a Surgeon.

On Saturday night, while the train from Belfast was entering Amiens-street Terminus, Dublin, a man left the carriage while the train was in motion, and by some mischance fell on to the rails, the next carriage passing over him and almost severing both thighs. Mr. Croly, President of the Royal College of Surgeons, who was in the train, returning from a professional visit, hearing the outcry, jumped out, and before the train was brought to a standstill, at great risk to himself, got down among the carriages and extricated the injured man. As both lower limbs were only slightly attached, Mr. Croly removed them, and tied those bleeding vessels that required deligation. The man was then removed on a stretcher to one of the waiting-rooms, but died from shock about an hour afterwards.

Health of Ireland for March Quarter.

The birth-rate for March quarter was equal to the average

rate for the corresponding quarter of the past ten years—viz., 24·4, while the deaths were below those recorded in the same quarter of last year by 3767. The returns of pauperism show a decrease of 2836, or 6 per cent., in the average number of workhouse inmates on Saturdays during the quarter, and an increase of 993 in the average on out-door relief. No general outbreak of zymotic disease occurred, but enteric fever prevailed in Belfast, and whooping-cough in several districts; also influenza, but the latter affection was only fatal in a few instances. Four deaths from small-pox were registered, all in Ulster; while measles caused 85 deaths, against 412 in the corresponding quarter of last year; scarlatina 80, against 184; typhus fever 77, against 109; whooping-cough 322, or a decrease of 70 compared with the average for the five preceding first quarters; enteric fever 198, being a slight increase; and diarrhœa 219, or 35 below the average.

A garden *fête* in aid of St. Joseph's Hospital for Children takes place to-day (Tuesday), when, among the attractions offered, will be a military band and some performers from Hengler's Circus.

Dr. Alfred Smith has been appointed Professor of Midwifery and Diseases of Women in the Catholic University Medical School, in the room of the late Dr. John Byrne.

Havelock Charles, M.D., Surgeon, Indian Medical Service, has been admitted a Fellow of the Royal College of Surgeons.

June 30th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

Successful Transplantation of Malignant Growths in the Human Being; Indignant Protest of the Académie de Médecine.

A COMMUNICATION on the above subject, which has evoked quite a tempest of expostulation in both the lay and medical press, was made by Professor Cornil at the Académie de Médecine on the 23rd inst. For many years past attempts have been made to reproduce cancer in the lower animals by the process of grafting or by the injection of cancerous juice. In this connexion the names of MM. Gonjon, Onimus, and Legros will be familiar to your readers, nor will the successful attempts of Hanau to transplant fragments of malignant growths from one animal to another of the same species be forgotten. The positive results obtained by Dr. Morau—results communicated to the Société de Biologie on May 2nd, and rigorously controlled histologically by Professor Cornil—prove that the cylindrical epithelioma of the mouse can be exactly reproduced in a healthy individual of the same species by simply injecting hypodermically the milky juice of the neoplasm. It has, however, been reserved for a surgeon, *not* of French nationality, and whose name Professor Cornil did not, for obvious reasons, feel justified in divulging, to prove experimentally that fragments of sarcomatous and epitheliomatous growths can be transplanted from one human mamma to its healthy fellow, there to develop into tumours both clinically and histologically identical with the parent neoplasms. In the first and more conclusive case a woman suffering from a large tumour of the breast had it removed by a surgeon who, while the patient was still under the influence of chloroform, inserted a minute fragment of the excised growth into the other breast, which was then quite healthy. Antiseptic precautions having been rigidly taken, primary union ensued. But soon there developed in the gland experimented on a hard nodule, which, having, after the lapse of two months, attained the size of an almond, was, in its turn, excised by the same practitioner. Fragments and sections of the two tumours were forwarded to Professor Cornil—this occurred four years ago—who found that they were structurally identical, being composed of fasciculated sarcomatous tissue, made up of long fibroplastic cells arranged in decussating bundles. Sections of the graft-born tumour revealed a large number of cells undergoing the process of karyokinesis, indicating rapid growth. Its vessels had anastomosed with those of surrounding parts, and its cells had penetrated gradually into the neighbouring normal parts and effected their transformation into sarcomatous tissue. The patient succumbed some time after the second operation to an acute intercurrent affection, and the necropsy failed to bring to light any trace of sarcoma either in the lymphatic glands, the viscera, or the cancellous bony tissue. It is thus fair to assume that the grafting was a genuine process, and that the growth developed at the seat of the transplantation was not a secondary one of spontaneous origin. The second experiment was analogous to the first, only in this case the growth originated by the grafting in the healthy mammary gland could not be compared histologically with the original neoplasm—a cylindrical epithelioma—owing to the patient refusing to submit to a second operation, and having been consequently lost sight of. These experiments are obviously, when viewed from a scientific standpoint, of vital importance, and, considered in connexion with recent researches on the parasitic nature of malignant growths, cannot fail to be of great use to future investigators. But morally no possible excuse can be found for such trifling with a precious human life, and the conduct of the anonymous surgeon in question fully merits the condemnation passed on it by MM. Le Fort and Moutard-Martin, whose remarks were cheered to the echo by the members of the Académie present on the occasion. It is only just to add that Professor Cornil hastened to associate himself with the sentiments expressed by his colleagues, alleging that his sole motive in bringing the matter to the notice of his fellow Academicians was a purely scientific one. The lay press was, of course, not behindhand in indignantly protesting against such an inhuman proceeding, and until the Director of the Assistance Publique declared, in reply to a question put at a sitting of the Conseil Municipal, that the experiments had not taken place at any of the Paris hospitals—the *Bulletin Médical* goes further, and denies its occurrence at any *French* hospital—the emotion was great amongst the public. No one who has the privilege of knowing Professor Cornil, who is kindness itself, would for one instant entertain the belief that this distinguished pathologist had been actuated by aught but the most elevated humanitarian motives in making public—after a lapse of four years, be it said—the results of an experiment whose practical importance cannot well be exaggerated, however severely one may condemn the proceedings of its author.

The Treatment of Fracture of the Patella.

Oceans of ink have been expended on treatises dealing with the pathology and treatment of fractures of the knee-cap, and the inventive faculties of generations of surgeons have furnished us with every variety of apparatus more or less ingeniously calculated to reduce the fibrous callus—the only kind of union hoped for—to the smallest possible dimensions. It is true that bony union has been exceptionally obtained. Bryant figures one example from the Guy's museum in his work, but the fact remains that the routine treatment by prolonged immobilisation, and necessarily imperfect coaptation, yields a large proportion of unsatisfactory results. Does not the immunity conferred on operative procedures by the observation of modern antiseptic rules justify us in discarding the antiquated methods now in vogue in favour of the infinitely more rational practice of cutting down on the fragments and suturing them? This mode of treatment, initiated in our own country by Cameron of Glasgow, whose example was followed by Lister, Royes Bell, and others, has never become really acclimatised, and it still encounters considerable opposition on the part of the "veille garde" of the profession. Did not a venerable member of the Paris Société de Chirurgie solemnly declare that any surgeon who recommended such a hazardous treatment deserved to be placed on his trial at the Assizes? At the last meeting of the above-mentioned Society, M. Lucas-Championnière made a vigorous attack on the inefficient methods represented by Malgaigne's and Duplay's hooks &c.; and boldly declared that the only rational treatment of this traumatism is suture of the fragments. He recommends thick metallic sutures, which do not cut their way through, and insists on the necessity of antiseptic in contradistinction to aseptic precautions during the operation. In support of his views he presented two patients—one, aged over sixty, treated by suture twenty days ago, who walked well; and another treated by means of Duplay's hooks, who, after a lapse of five months, walked badly, could not extend the limb, and was incapable of carrying weights. In the course of the discussion that ensued, M. Berger stated that he had examined at Bicêtre Asylum ten old men who had formerly suffered from fractured patella. Of these, two had useful limbs, four walked

badly, and in the rest the infirmity left by the accident was palpable. M. Berger, nevertheless, supported MM. Kirmisson and Richelot, who followed him in the debate, in controverting the conclusions of M. Lucas-Championnière, these gentlemen contending that, excellent results being often obtained from the non-operative methods of treatment, the suture should be reserved for exceptional cases. M. Lucas-Championnière, in reply, claimed for his method that cure was brought about in from twenty to thirty days, and informed the Society that the patient presented to them on that occasion was the thirty-fifth of a series who had left his wards with perfect limbs, thanks to the treatment advocated by him. As to the feasibility of the method, he assured the Society that many of his old dressers practising in the country had obtained excellent results from it.

Charlatanism in Paris.

A week or two ago I received a polite request from the Mairie of my arrondissement to furnish the authorities with the date of the registration of my diploma of Doctor of Medicine at the Préfecture de la Seine. A simlar requisition has been made in every district in Paris, the object being to weed out of those members of the community who devote themselves to the healing art the quacks who abound in this city. To mention only one class of irregular practitioners, it is really scandalous to read in every urinal advertisements vaunting the methods of treatment—generally, *sans mercure*—of those eminent free-lances who, despite the fact that their names are happily not discoverable in any medical directory, are allowed to carry on what must be a flourishing trade. It is said that America is the paradise of quacks, but I make bold to assert that the States are run very close in this respect by Paris. Some months ago an employé at a well-known dancing place was convicted of having assumed the title of Dr., and having conducted quite a large practice. By dint of long association with the medical students who frequent the dancing rooms alluded to, he had acquired a professional jargon which enabled him to pose as a real medico. His therapeutical armamentarium exhibited a delightful simplicity, consisting as it did of only one prescription, which he had learnt by heart.

Paris, June 30th.

BERLIN.

(FROM OUR OWN CORRESPONDENT.)

The Treatment of Mad Wolves' Bites.

OWING to the number of rabid wolves in Roumania and the neighbouring countries Professor Babesch, Director of the Bacteriological Institute in Bucharest, and one of the ablest pupils of Pasteur and Koch, has had many opportunities of treating persons bitten by mad wolves by Pasteur's method, unfortunately, however, without success, for the symptoms of the disease broke out much too quickly to admit of an effective cure by the application of lymph taken from the spinal cord of rabbits that had died of hydrophobia. In view of this sad fact, Professor Babesch has for some time past been making experiments with the purpose of ascertaining whether the immunity from the virus of hydrophobia conferred by Pasteur's method cannot be transferred by inoculating the blood of animals thus rendered immune to other warm-blooded animals. These experiments showed that such inoculation had a prophylactic effect even in cases in which Pasteur's spinal cord lymph, under otherwise quite identical conditions, produced no such results whatever. Dr. Babesch tried this method on twenty-seven persons who had been bitten by a rabid she-wolf at or near Sadagora in the middle of April. In two of the patients, who arrived at the Bacteriological Institute in Bucharest at intervals of from five to eleven days, the early symptoms were evident before the protective inoculation could be performed. In a third, who was one of the last to arrive, and who had been most cruelly lacerated, hydrophobia broke out immediately after the beginning of the inoculations, and cure was out of the question. The other twenty-four, however, and two inhabitants of the Dobrudscha, suffering from the same cause, were sent home cured about the end of May. It is true that, for certainty's sake, spinal cord lymph was injected as well as blood, but, considering the proved inefficacy of the lymph against the virus of mad wolves' bites and the circumstance that the wounds were severe in the face and other naked parts, and of long infliction, there seems little room for doubt that the cure was due to the inoculation with blood. At each inoculation 20 grm. of the blood of dogs which had been rendered immune from hydrophobia were injected in the abdominal region.

Medical Statistics.

The number of deaths reported in Berlin during the week which ended on the 6th inst. was 478, 262 of males and 216 of females. One person died of measles, 1 of influenza, 1 of poison, 1 of morphia, 2 of erysipelas, 3 of scarlet fever, 3 of puerperal fever, 3 of typhus fever, 4 of whooping-cough, 10 of decrepitude, 12 of diphtheria, 13 of gastro-intestinal catarrh, 17 of cerebral apoplexy, 19 of diarrhœa, 29 of diarrhœa with vomiting, 44 of pneumonia, and 67 of pulmonary consumption. Sixteen died violent deaths, including 6 suicides. Of the 898 children born alive exactly half were boys and half girls. Of these 108 were illegitimate. Forty children were born dead, of whom 10 were illegitimate. The population of Berlin at the end of that week was 1,599,346. The death-rates of the principal German cities were as follows: Aix-la-Chapelle, 20·4; Altona, 23·3; Berlin, 15·6; Bremen, 17·8; Breslau, 21·9; Chemnitz, 28·9; Cologne, 22·5; Dantzic, 24·9; Dresden, 19·3; Düsseldorf, 25·3; Elberfeld, 18·3; Frankfort-on-the-Maine, 17·4; Hamburg, with its suburbs, 13·6; Hanover, 19·8; Königsberg, 27·4; Krefeld, 17; Leipsic, 16·9; Magdeburg, 18·6; Munich, 27·9; Nürnberg, 23·6; Stettin, 24·2; Strasburg, 21·2; and Stuttgart, 16·4. The death-rate of Amsterdam in the same week was 23·9; Copenhagen, 22·2; Dublin, 20·1; Liverpool, 35·5; London, 27; Paris, 21·2.

Berlin, June 23rd.

Obituary.

PETER MARTIN DUNCAN, M.B. LOND., F.G.S., F.R.S.

ALL old King's College men who joined in the celebrated year 1843 and continued there for the following two or three sessions will well recollect the subject of this notice, who recently died at his house at Gunnersbury, after a long and painful illness. "Post-mortem Duncan," as he was familiarly called, both from his initials and from his devotion to pathological investigation, was, amongst many men who afterwards rose to distinction, prominent by his attention to his studies as well as by his genial qualities. He became closely associated with Dr. Todd whilst Professor of Physiology. Duncan did a great deal of useful scientific work for that celebrated teacher, and became infused with much of the ardour for which Todd was renowned. He passed the first M.B. examination in 1844 with honours in anatomy and physiology, and his second M.B. in 1846, in which year also he became a Member of the Royal College of Surgeons. On the termination of a very distinguished career at King's College Duncan entered into practice at Colchester, and in course of time got into good practice, and was much consulted as a physician. After a time he left Colchester and joined the late Mr. Finch at Blackheath. Ultimately, however, he retired from practice, and having a strong bias for scientific studies he joined the professorial staff at King's College in 1869 in the department of geology, and afterwards became well known by his writings on various subjects connected with this science and with comparative anatomy. He was for many years one of the examiners in science at the University of London, and was one of the most distinguished teachers at the Indian Engineering College at Cooper's Hill.

DR. PASQUALE MUSOLINO.

THE Riviera Levante has lost one of its most notable physicians in Dr. Pasquale Musolino, who died on the 20th of June at Porto Maurizio. He belonged to a family which sacrificed both blood and treasure for Italy's unity and independence—a family now represented only by Domenico and Giovanni Nicotera, the latter holding office as Minister of the Interior in the present Italian Administration. A native of Calabria and a student of medicine in the Neapolitan School, Pasquale was arrested in 1844 as one of the "Giovane Italia," a patriotic club founded by

his brother, Benedetto Musolino. He emerged from the Bourbon Prison in 1848, again to be enrolled in the ranks of young Italy. When the revolution was for the time under the surface, he found an asylum in Genoa, and there he devoted himself to the professional study he had kept up in the Neapolitan dungeon. In 1859 he served in the Garibaldian contingent of the Piedmontese Army, winning honourable distinction under fire as well as in the ambulance and the hospital. In 1866 he was again a Garibaldian Volunteer in the campaign that closed with the cession of Venetia, after which he settled down in medical practice at Porto Maurizio. Here he rapidly gained the confidence and affection of the population, including the *clientèle* he found among the periodical visitors to that health resort, and in the discharge of professional duty he died—"asking nothing, wishing nothing," says an Italian correspondent, "satisfied only with having been able, like his brothers and his nephew, Giovanni Nicotera, to devote himself heart and soul, in days and nights of trial, to his beloved Italy. With him disappears another noble figure of the Italian *risorgimento*, one of those who never made traffic of their patriotism."

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AT an extraordinary meeting of the Council of the College, held on Thursday, June 25th, the President reported the decease of Sir Prescott Gardner Hewett, Bart., F.R.S., past President and Member of the Council of the College, and it was resolved unanimously to send a vote of condolence to his family on their loss.

The President and Sir Wm. Savory, Bart., chairman of the delegates of the College, reported the proceedings of the delegates of the two Royal Colleges in reference to the proposed Charter for a new University for London on the application of University College and King's College.

A letter from Dr. Liveing, enclosing a copy of a resolution adopted at a meeting of the Royal College of Physicians on June 20th with regard to the same subject, was also read.

THE ELECTION TO THE COUNCIL.

The third election of three members to the Council, under the new regulations, voting by means of proxy papers being allowed, was held in the library of the College on the afternoon of Thursday, the 2nd inst., from two to four o'clock, and resulted as follows:—

SIR W. MAC CORMAC ...	275	(including	10	plumpers).
MR. JESSOP	261	,,	9	,,
MR. W. RIVINGTON ...	211	,,	9	,,
Mr. Sibley	194	,,	0	,,
Mr. R. Lawson Tait	188	,,	18	,,

Sir W. Mac Cormac was therefore declared to be duly re-elected, and Messrs. Jessop and Rivington to be elected Members of the Council.

The election appeared to excite but little interest amongst the Fellows, only 119 of whom appeared in person and gave their votes. At three o'clock sixty votes had been given in. Of these 119 votes no less than five were declared invalid, and were lost through carelessness on the part of the voter. Of the proxy papers, 335 were received; thirteen of these arrived too late for the election; one envelope was sent without enclosure.

The President thanked the scrutineers of the ballot, Mr. Battle and Mr. H. B. Robinson, for their services during the election.

At the election on July 5th, 1890, the poll was headed by Mr. Mitchell Banks with 378 votes. Mr. Rivington at that election polled 131, and Mr. Lawson Tait 160. The number of voters at the election in 1890 was 527, and in 1889 600.

The usual exhibit of the specimens, sketches, &c., which have been added to the museum during the past year, was held in the Council room, and the excellent collection attracted much attention. It will be on view to all members of the profession until Tuesday evening next.

Medical News.

UNIVERSITY OF DUBLIN. — At a meeting of the University Caput, held last week, the following degrees were conferred:—

Bachelor in Medicine.—Arthur Forbes McCutcheon.

Bachelor in Medicine, Surgery, and Obstetrics.—David Richardson Goodlatte Corrigan, John George Gibbon, William Robert Griffin, Hugh Hunter (B.Ch. stip. cond.), Joseph Singer Jameson, Richard Percy Jones, Owen Fenner Joynson, George Abraham Moore, Richard Albert Moynan, Frederic John Myles, David Stuart Sleith.

Doctor in Medicine.—Edward Arthur Crampton Baylor, James Craig, William Richard Dawson, Henry Hobart S. Dorman, Fitzgerald Isdell, Edward Parker Norman, W. J. Nickson (*in absentiâ*).

Doctor in Science (*Honoris Causâ*).—James Emerson Reynolds, Daniel Cunningham, John Mallet Purser.

William Richard Dawson, M.D., of Portadown, has been awarded the Travelling Prize of one hundred guineas.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—The following gentleman, having passed the necessary examination, has been admitted a Fellow of the College:—

Havelock H. R. Charles, M.D., M.Ch. Queen's University, Surgeon I.M.S.

SOCIETY OF APOTHECARIES OF LONDON. — The following candidates passed in the subjects indicated during June:—

Surgery.—F. J. Brown, Owens College, Manchester; A. C. Fenn, St. Bartholomew's Hospital; E. J. T. Jones, St. Thomas's Hospital; C. P. Morgan, Guy's Hospital; W. R. Nicol, Montreal; A. Paling, Middlesex Hospital; E. M. Rooke, Guy's Hospital; J. H. Sproat, Queen's College, Birmingham; H. S. Ware, Cambridge and St. Thomas's Hospital; and G. W. Wickham, St. Bartholomew's Hospital.

Medicine, Forensic Medicine, and Midwifery.—H. B. Bates, University College, Liverpool; G. T. B. Blick, St. Mary's Hospital; F. J. Brown, Owens College, Manchester; E. M. Dobinson, Guy's Hospital; W. E. Reilly, University College; and J. H. Sproat, Queen's College, Birmingham.

Medicine and Forensic Medicine.—E. Lambert, Yorkshire College, Leeds.

Medicine and Midwifery.—H. C. Powell, Charing-cross Hospital; and C. A. Ryde, London Hospital.

Forensic Medicine and Midwifery.—C. A. Lapthorn, Middlesex Hospital; and C. T. Standring, King's College.

Medicine.—M. H. Knapp, St. Mary's Hospital; C. S. Lewis, St. George's Hospital; and F. Spurr, Middlesex Hospital.

Midwifery.—C. R. Harper, Middlesex Hospital.

Forensic Medicine.—T. C. Hughes, Westminster Hospital; and L. Roberts, St. Mary's Hospital.

To the following gentlemen was granted the Diploma of the Society, entitling them to practise Medicine, Surgery, and Midwifery:—

Messrs. Bates, Blick, Brown, Dobinson, Hughes, Lambert, Lapthorn, Roberts, Rooke, Ryde, Sproat, and Standring.

LONGEVITY IN IRELAND. — During the March quarter there were thirteen deaths registered of centenarians. Of these, there were two each at 100 and 101 years, three each at 102 and 103 years, and one each at 104, 105, and 107 years respectively.

EAST-END MOTHERS' HOME, COMMERCIAL-ROAD.—The object of this institution is the treatment of poor married women during childbirth free of charge, and the training of midwives and nurses for attendance on the poo at their own homes. 169 patients were registered for admission during the past year; of these, 116 became in-patients. Six nurses were trained in the course of the year as monthly nurses. An out-patients' department has been started. The estimated cost (£100) for the first year has been provided by the generosity of Mrs. Joicey, who also guarantees £50 a year in future. An urgent appeal is made to raise another £50 per annum.

MIDDLESEX HOSPITAL.—On Tuesday last Earl Spencer distributed the prizes at this hospital. The following is a list of the successful competitors:—Entrance Scholarships—first, £100, A. E. Walker; second, £60, H. P. Noble. Broderip Scholarships—first, £60, A. Lawson; second, £40, T. T. Cockill. Governors' Prize—20 guineas, T. Carwardine. Hetley Clinical Prize—£25, T. Carwardine. Lyell Gold Medal — T. Carwardine. Exhibition in Anatomy and Physiology—£10 10s., A. P. Coker. Medicine—H. W. Gibson and T. Carwardine, equal. Surgery—H. W. Gibson. Practical Surgery—H. W. Gibson and T. Carwardine, equal. Practical Midwifery—T. Lloyd. Anatomy—R. A. Young. Physiology—R. A. Young. Dissections—F. N. Cookson. Chemistry—C. H. J. Robinson.

METROPOLITAN ASYLUMS BOARD.—Sir E. Galsworthy presided at the usual meeting of the managers held in Spring-gardens on the 27th ult. A letter was read from the Local Government Board respecting the proposed Infectious Diseases Hospital at Tottenham. The board had received many representations against the erection of a fever hospital on the site in question, and suggested that an endeavour should be made to obtain some other site. Mr. Scovell, chairman of the General Purposes Committee, moved that the letter be referred to his committee, which was carried. The General Purposes Committee presented a report as to acquiring a site for the erection of offices for the board, but after some discussion the question was adjourned *sine die*.

ROYAL BRITISH NURSES' ASSOCIATION.—On Monday a deputation from this Association, consisting of representative matrons from the London and provincial hospitals, waited upon H.R.H. Princess Christian of Schleswig-Holstein at Buckingham Palace, to present the congratulations of the members upon the occasion of her silver wedding day, together with a diamond star, a copy from the antique, which had been subscribed for by nurses scattered all over the British Empire. The deputation was most graciously received, and, in reply to the address, the Princess spoke of her unabated interest in the work of the Association, and her intention to persevere in the cause which they had at heart, in spite of the opposition which, in common with all new movements, they were at present encountering.

LORD CARRINGTON presided at the annual distribution of prizes in connexion with Charing-cross School on Wednesday, July 1st, 1891. The following is the complete list of awards for summer session, 1890, and winter session, 1890–91:—Llewellyn Scholarship: certificate and £25, Mr. D. C. Johnston. Golding Scholarship: certificate and £15, Mr. W. J. Robertson. Governors' Clinical Gold Medal: Mr. A. W. W. Hoffman. The Pereira Prize: certificate and £5, Mr. H. D. Senior. Anatomy (Senior): Mr. W. J. Robertson. Anatomy (Junior): Mr. D. P. Gabell. Physiology (Senior): Mr. E. B. Jones. Physiology (Junior): Mr. G. R. Clarke. Practical Physiology: Mr. W. T. White. Chemistry: Mr. C. S. Reed. Practical Chemistry: Mr. P. J. Probyn. Osteology: Mr. S. H. Hayward. Medicine: Mr. H. H. Phillips. Practical Medicine: Summer—certificate, Mr. Harold Gardner; Winter—Mr. G. H. Hooper. Surgery: Mr. S. L. J. Steggall. Minor Surgery: Mr. R. W. S. Christmas. Therapeutics: Mr. A. W. W. Hoffman. Materia Medica: Mr. W. J. Robertson. Midwifery: Mr. J. H. Day. Forensic Medicine and Toxicology: Mr. A. W. W. Hoffman; certificate, Mr. J. H. Day. Pathology: Mr. Harold Gardner. Dental Surgery: first prize, certificate, and £6 6*s.*, Mr. R. N. Gracey; second prize, certificate, and £4 4*s.*, Mr. E. B. Jones.

AT Marylebone, William Nottingham, twenty-four, described as a medical student, and giving an address at Portland Chambers, Oxford-street, was charged with stealing a case of surgical instruments, valued at £3, from 11, Chester-place, Hyde-park; also with obtaining 5*s.* by false pretences from Mr. James L. Johnson. The prosecutor stated that his father was a doctor. He kept his instruments in a drawer in his study. On Saturday, the 13th, the prisoner called at the house and asked to see his father. The witness saw him, and told him that his father was in the country. Later in the day prisoner called again and said that he would leave a note. He was shown into the study, where he wrote something, and where he was left for a time by himself. In course of conversation prisoner said that he was a son of Sir Charles Cameron, and that he was a medical student. He also said that he was without resources just then, and on the strength of the statement he had made the witness gave him 5*s.* Soon after he left the house the instruments were missed. When the prisoner was arrested by Detective-sergeant Dyson he declined to give any account of himself. Mr. Charles John Cameron, living at 51, Pembroke-road, Dublin, stated he was a son of Sir Charles Cameron. He knew the prisoner as having stayed at an hotel in Westminster. Prisoner was not a son of Sir Charles Cameron. The magistrate was informed by a detective from Scotland-yard that there were several other cases against the prisoner, and he asked for a remand. Mr. Partridge sentenced the prisoner under the Vagrant Act to three months' imprisonment, and intimated that the police could prefer the other charges against the prisoner when he was released from prison.—*The Times*, June 29th.

UNIVERSITY OF FRANCE.—Among the candidates who passed the fifth (final) examination last week for the diploma of Doctor of Medicine of the Faculty of Paris was Mr. Alfred S. Gubb of London.

LOUTH HOSPITAL AND DISPENSARY.—The annual meeting of the governors was held recently. The report for the past year—the eighty-eighth—stated that during the year the in-patients had increased from 85 to 103, and the number of out-patients was 832; an addition on the year of 75. The treasurer's cash statement showed an adverse balance of £96 19*s.* 7*d.* The secretary stated that one-fourth of the rich and well-to-do inhabitants around Louth were not supporting the institution, and the arrears of subscriptions amounted to upwards of £50.

PROVIDENT SURGICAL APPLIANCE SOCIETY.—The nineteenth anniversary festival of this Society was held last week at the Hôtel Métropole. Mr. Vicary Gibbs occupied the chair. In proposing the toast, "The Surgical Appliance Society," the chairman stated that during the past year the Society had distributed 6134 appliances, an increase of 654 on the previous twelve months. Year by year, without intermission, the Society had more applicants than the funds would allow the committee to help, and the influx of foreign Jews much augmented the demand for surgical appliances. The secretary announced subscriptions and donations amounting to nearly £800.

LITERARY INTELLIGENCE.—The first number of a new journal, entitled *Deutsche Zeitschrift für Nervenheilkunde*, has appeared. It is to concern itself mainly with the pathology, pathological anatomy, and treatment of nervous diseases, and the names of its editors—Professors Erb of Heidelberg, Lichtheim of Königsberg, Schultze of Bonn, and Strümpell of Erlangen—are a sufficient guarantee that its articles will be full of interest and value to neurologists. The first number comprises papers by Erb, Hoffmann, Möbius, and Nonne, while several pages are devoted to shorter contributions. Such a number is of itself almost sufficient to justify the existence of a periodical, and if this high standard is maintained, the journal will be a welcome addition even to the abundant literature of nervous disease. Vogel of Leipsic is the publisher.

UNITED HOSPITALS ROWING CLUB CHALLENGE CUP.—The annual race for the above-named trophy took place on Friday, June 26th, in beautiful weather. Owing to the absence of St. George's last year's winners, only three boats took part in the competition—namely, St. Thomas's, London, and Middlesex. St. George's were without the valuable assistance of their stroke, Mr. Gardner, the famous light-blue oarsman, who is in training for Henley Regatta, and also their second best man, who is laid up with influenza, and were therefore unable to get up a crew within the allotted time. A launch was chartered for the convenience of the large and fashionable company who assembled to witness the struggle, but unfortunately she twice got short of steam while the race was being rowed. St. Thomas's got afloat first just as the clock was striking five, taking up their position on the Middlesex station of Putney-bridge. London followed almost directly, making for the Surrey berth, whilst Middlesex had the centre. Middlesex got off first, and led by about half a length for the first minute; they were then caught by London, who were somewhat abroad at first owing to No. 3 catching a crab, but, settling down immediately after, they took the lead, which they maintained throughout the race, passing under Hammersmith-bridge winners by about five or six lengths. The result was somewhat of a surprise to the onlookers, as none thought that the winners would be able to keep up the pace at which they started. Middlesex and St. Thomas's rowed a capital race for second honours, which fell to the latter by half a length. Time, 9 min. 1 sec. Crews and weights:—St. Thomas's: R. E. Nix (bow), 11 st.; J. Carver, 11 st. 7 lb.; H. J. Davis, 12 st. 10 lb.; T. H. Haydon (stroke), 10 st. 10 lb.; W. Allan (cox.), 9 st. 5 lb. London: H. W. Evans (bow), 10 st.; W. Bird, 12 st. 9 lb.; J. Moses, 12 st. 5 lb.; G. Boyd (stroke), 10 st. 10 lb.; E. C. Smith (cox.), 8 st. 3 lb. Middlesex: L. A. Williams (bow), 10 st. 7 lb.; C. E. Maude, 11 st. 4 lb.; A. F. Palmer, 12 st. 4 lb.; W. H. Nicholson (stroke), 11 st. 7 lb.; C. H. Johnson (cox.), 8 st. 5 lb. Previous winners: 1885, London; 1886, Middlesex; 1887, Middlesex; 1888, St. Thomas's; 1889, St. Thomas's; 1890, St. George's.

THE arrangements for in-door patients at the St. Pancras and Northern Dispensary, Euston-road, are now complete, and several cases have received treatment. The first major operation was performed on June 14th, when Dr. Leith Napier did a successful Cæsarean section, as both mother and child have progressed favourably.

NORTH-EASTERN HOSPITAL FOR CHILDREN, HACKNEY-ROAD.—The twenty-third annual meeting of this institution was held on the 22nd ult. The annual report, which was adopted, showed that 67,652 patients were treated in the course of the year 1890. The financial result of the year was an excess of expenditure over receipts amounting to £1460, the deficiency arising from a falling off by £2000 of legacies and donations. The committee had under these circumstances taken steps to obtain a mortgage on the property of the hospital.

GREAT YARMOUTH HOSPITAL.—The fifty-third annual report states that the past year was the second complete year of the new and enlarged hospital, and a more accurate estimate of the expenses and requirements had been obtained. The income for the year was adequate to cover the disbursements. Of both in- and out-patients treated the numbers had exceeded those of previous years. No less than 116 operations were performed, and only three were unsuccessful. The total amount of invested funds is £47,670.

THE CITY ORTHOPÆDIC HOSPITAL.—The anniversary festival—the thirty-ninth—of this hospital was held on the 24th ult. at the Holborn Restaurant. The Earl of Aberdeen presided. On proposing the toast, "The City Orthopædic Hospital," the noble chairman stated that during the year 1890 no fewer than 2255 persons suffering from some deformity had been admitted to treatment, the majority being children. The expenditure for the year had been well within the receipts. An extension of the hospital having become necessary, the committee had purchased the freehold of the hospital premises and of the adjoining house for £9000, of which £3000 had been paid. The liabilities of the charity urgently needed the generous pecuniary support of the public. An interesting episode then took place. Mr. Klench asked the trustees to accept a portrait of Mr. E. S. Chance, F.R.C.S., surgeon to the hospital, which had been subscribed for by the committee. It was not a personal presentation to Mr. Chance, but a gift to the hospital as a testimony of the good work he had done for the institution. The presentation was accepted, and Mr. Chance received a perfect ovation. The subscriptions announced amounted to £750.

MEDICAL NOTES IN PARLIAMENT.

Factories and Workshops Bill.

IN the House of Lords on Monday last Lord de Ramsey moved the second reading of the Bill. He stated that the Government had paid the most careful attention to the recommendations of the Select Committee on the Sweating System, and had given effect to them in the clauses of the Bill dealing with sanitation, the hours of labour in women's workshops, overtime, and other matters. In regard to the labour of half-timers, he asserted that there was no absolute obligation resting on this country to carry out the resolution of the Berlin Conference for raising the age of the children to twelve years—a course to which both our workpeople and their employers were strongly opposed. An amendment, however, fixing the age at eleven instead of ten years had been moved by a private member in the other House, and carried, and the Government had accepted that compromise.—Lord Kimberley agreed with the principle of the Bill, but regarded the explanation given of the conduct of the Government in respect to the Berlin Conference as rather lame and unsatisfactory.—Lord Salisbury was not then able to quote the precise words used at the Berlin Conference, where they had to take a very rapid decision, but he believed that they did not pledge the Government by immediate legislation to raise the age of half-timers to twelve. There was, no doubt, much to be said in favour of that particular age, but it was of essential importance that they should, if possible, carry with them the feeling both of the employers and the operatives, who were not now prepared for so great and so sudden a change in their industry. The House of Commons having, however, after fair discussion, adopted the age of eleven, he did not think it would be well now for their lordships to disturb that decision.—Lord Herschell regarded it as unfortunate that at the Berlin Conference the Government should have appeared to invite other Powers to concur in a proposal which it was not itself prepared to adopt.

The Bill was read a second time.

Public Health (London) Bill.

In the House of Commons this Bill, as amended by the Standing Committee, was considered by a committee of the whole House on Friday, the 26th ult.—Mr. Morton proposed to introduce a clause requiring certification of proper drainage arrangements of all houses used for human habitation.—Mr. Ritchie objected that the clause was of too drastic a character, and would lead to very great additional labour being thrown on the sanitary authorities. He deprecated the introduction into this measure of a somewhat onerous and complicated clause. The amendment was negatived.—Mr. Cremer moved the following new clause: "A watercloset or drain shall not be improperly constructed or repaired so as to be a nuisance or injurious or dangerous to health. If there is any contravention of this section, any person undertaking or executing such construction or repair shall be liable to a fine not exceeding £20; provided that where there has been such a contravention, and a person undertaking such construction or repair is charged therewith, he shall be entitled, upon information duly laid by him, to have any other person, being his agent, servant, or workman, whom he charges as the actual offender, brought before the court at the time appointed for hearing the charge, and if he proves to the satisfaction of the court that he had used due diligence to prevent the contravention of this section, and that the said other person committed the contravention without his knowledge, consent, or connivance, he shall be exempt from any fine, and the said other person may be summarily convicted of the contravention."—Mr. Ritchie remarked that although the clause seemed to be carefully safeguarded it might, he was afraid in some cases, make persons liable who were not in fault. His own attitude in regard to the proposal was a benevolent one, and he was disposed to accept the clause. Before the Bill went to another place he would consider whether words could not be inserted in order to prevent the wrong person from being charged.—Mr. Boulnois moved an amendment in Clause 16 providing that "the sanitary authority" and not "the County Council," as proposed by the Bill, should make by-laws as to the prevention of nuisances.—Sir C. Russell supported the amendment on the ground that all powers that could safely be given to a local representative body ought to be conferred on it.—Earl Compton said this matter had been fully thrashed out in the Grand Committee, where the President of the Local Government Board, having pointed out the importance of securing uniformity in the by-laws, the Grand Committee decided to vest the power of making by-laws in the County Council. If they agreed to the amendment they would be taking a retrograde step.—Mr. Ritchie said the Government naturally desired that the authority which had the supervision of the whole of London should make the by-laws which should be applicable to the whole of London. He acknowledged that the provisions of the Bill had been resented by local authorities throughout the country. This Bill was a very important one, and he thought that few persons had quite realised the effect it would have on the public health of London. He acknowledged that he was departing from the position he had taken up in the Grand Committee on this point; but he believed they would be enabled to smooth away a vast number of difficulties; to conciliate instead of to offend the local authorities, while inflicting no practical damage on the Bill.—Sir J. Lubbock was anxious to say a few words, not as Chairman of the London County Council, but as a Londoner and a London member. In that capacity he regretted that the right hon. gentleman had agreed to any change in the clause. He thought it was a change in the wrong direction. At the same time he admitted the difficulties of the right hon. gentleman, and it would be a misfortune to lose the Bill. For his part, he cordially recognised the valuable services of the London vestries, to which we were much indebted. At the same time he thought it better that by-laws should be made by a central authority. THE LANCET, in a very able article on the 18th of April, said:—"A little consideration will doubtless show that the course Mr. Ritchie has adopted is inevitable if London is to be properly governed. There is an absolute necessity that a central power should exist for the purposes of the sanitary requirements of London as a whole. It cannot be held that the administration of one district does not concern others. London, great as it is, is but one town." With that he entirely concurred. The amendment was ultimately agreed to. After further deliberation, and some consequential amendments, the report stage of the Bill was concluded, and on the motion of Mr. Ritchie the Bill was read a second time amidst cheers.

Fever in Clonmel Gaol.

In answer to Sir T. Esmonde, Mr. A. J. Balfour said that the General Prisons Board report that only three cases of typhoid fever have occurred among the prisoners transferred from Tullamore to Clonmel Prison, and that two of these are now convalescent. Strict precautions were taken in the isolation of these cases, and the Board are not aware of any instance of communication of the disease either in the prison or in the town.

The Supply of Army Surgical Instruments.

In answer to Mr. A. O'Connor, Mr. E. Stanhope said. "It is reported to me that the surgical instruments supplied to the War Department are manufactured by the firms contracting to supply them, and that the prices are not higher than those charged by other houses for goods of the same standard of quality. Assurance that instruments are absolutely trustworthy is so essential in surgery that it has not hitherto been considered advisable to disturb by open competition arrangements under which perfectly satisfactory instruments have for many years been procured, but I will look further into the matter."

The Ventilation of the House of Commons.

The Special Committee of the House of Commons appointed to inquire into the question of the ventilation of the House sat for the first time on Monday, and elected Mr. Plunket chairman. Mr. John Taylor, Surveyor of Her Majesty's Works and Public Buildings, was the first witness called. He said the suggestions of the Committee of May, 1886, had been carried out, and so far as the drainage of the House was concerned the result had been satisfactory. Altogether £22,500 had been expended on improving the sanitary condition of the House since that Committee. In reply to Sir Henry Roscoe, he said that he was aware that complaints had been made of smells from the kitchen, but he was afraid that it was impossible to stop their coming up the lifts.—Mr. Prim, the resident engineer, at the request of the Chairman, explained how fog was excluded from the debating chamber. He was of opinion that there was not sufficient means of getting in the necessary volume of air on a busy night. The temperature of the House was taken once an hour. The Committee adjourned until Friday.

THE METROPOLITAN HOSPITALS INQUIRY.

The Hospital for Incurables, Putney.

LORD SANDHURST presided over the meeting of the Committee on Monday last, when the first witness examined was Mr. Frederic Andrew, Secretary of the Royal Hospital for Incurables, near Putney-heath. The hospital was founded in 1854, and contains accommodation for 218 inmates. Speaking of the diet, he said that the patients did not complain very much of the diet, but occasionally complaints were heard.—The Chairman:—Then the responsibility for the diet or the change of diet rests with the medical officer?—Yes.—The Chairman: Therefore, supposing a certain diet is kept on for too long a period, that is his business?—That is his business, but we expect the doctor to revise his lists about once a month at least.—The Chairman: Who knows what exact diet is being ordered? Do the committee see that?—They will see in the provision book everything put down.—The Chairman: Then with regard to vegetables, have you a kitchen garden?—We have a large kitchen garden. We put down in the account under the head of "housekeeping" the amount expended in getting the produce of the farm. We call it the farm; of course, it is a small thing. When we have the proper number of cows we have ten, and that is nearly sufficient for the wants of the house, because the steward is not allowed to mix any water with the milk to eke out. The expenditure, the witness said, amounted to £28,000, and the total receipts to £44,569. He objected to have a committee of ladies formed to supervise the matron, who was a woman of greatly superior knowledge to lay ladies, and she would not be likely to submit her better knowledge to their less knowledge.

South-Eastern Hospital.

Mr. John M'Combie, M.D., medical superintendent of the South-Eastern Hospital, was the next witness. Cases of diphtheria, typhus, enteric, scarlet, and relapsing fevers were admitted. He had two or three assistants, with a clinical assistant, who is an unpaid officer. The hospital contains 462 beds. Students were admitted, but they had not had very many of them up to the present.

General Practitioners' Union and Hospitals.

Mr. George Brown, M.R.C.S., L.S.A., general practitioner, said this Union had been formed chiefly in view of this inquiry. He urged that much time was wasted on trivial cases in the out-patient department.—The Chairman: Would it be a good thing if the general hospitals could open their hospitals in the evening?—I think it would crush out general practice altogether; I think it would be a very bad thing indeed. The class of cases who want hospital treatment can apply in the day, and would be sent in the day. General practitioners are not opposed to the hospitals if they are properly managed and worked; indeed, medical men would send and do send patients, if proper patients. Whenever we find we have a patient who cannot afford to go on with attendance, or whose case is of such a nature as to demand more expensive appliances or different treatment from that which they can find in their own homes, we are only too glad to send them to hospitals and find beds for them.—The Chairman: You would like to see the out-patient departments used as consulting departments?—Yes; for cases which can be made of use for the education of medical students.—The Chairman: May I gather that your Union is opposed to the springing up of special hospitals?—Most decidedly; and we advocate the forming of a central board.

Mr. W. E. Dawson, L.R.C.P. (Barbican), was the next witness. He said that the superabundance of medical charities was in no case better evidenced than in the E.C. district of London. Within a thousand yards of a fixed point he could name eight public dispensaries, three maternity charities, besides St. Bartholomew's Hospital. These dispensaries, owing to over-competition amongst themselves, had been lately compelled to adopt what had been designated "a system of twopences." At two dispensaries he mentioned he believed no investigation as to patients' circumstances took place. They both of them touted for patients by means of notice boards and placards.—Lord Sandhurst: Which system is more injurious to the local doctor, the "gratis" or "twopenny"?—The twopenny is infinitely more injurious.—Lord Sandhurst: Can you give us any instances of abuse at the hospital where you were educated?—I recollect a bed being occupied for weeks by the footman of a nobleman, who was suffering from gout, and whom the authorities were compelled to admit because he came with a governor's letter.—Lord Kimberley: What ought to have been done with him?—I think the nobleman should either have kept him at his house or sent him home to his own friends.

The Committee adjourned until Saturday.

METROPOLITAN ASYLUMS BOARD.

Return of Patients remaining in the several Fever Hospitals of the Board at midnight on June 30th, 1891.

Hospital.	Beds occupied.						Total accommodation.
	Scarlet fever.	Diphtheria.	Typhus fever.	Enteric fever.	Other diseases.	Total.	
Eastern Hospital	170	51	2	38	..	261	443
North-Western Hospital	108	34	..	17	..	159	443
Western "	141	13	..	8	1	163	224
South-Western "	143	19	..	16	1	179	240
South-Eastern "	133	9	..	9	4	155	468
Northern "	165	16	..	..	..	181	480
Totals	860	147	2	88	6	1103	2297

SMALL-POX.—*Atlas* hospital ship, 5.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

AITKEN, JOHN, M.D., C.M. Glasg., has been appointed Medical Officer of the Burgh of Buckhaven, Methil, and Innerleven, Fifeshire.

COTTAM, FRANCIS H. W., M.R.C.S., L.R.C.P., has been appointed Assistant Medical Officer at the County Asylum, Prestwich.

DIAMOND, WM., M.B., C.M. Glasg., has been appointed Medical Officer for the Omeo Shire, Victoria, Australia, vice Taylor, resigned.

EDRIDGE-GREEN, F. W., M.D., F.G.S., has been appointed Medical Officer for the Willesden No. 2 District.

GARRY, W. A. M., L.K.Q.C.P., L.R.C.S. Irel., has been appointed Assistant Medical Officer to the Infirmary, Salford Union.

HAYMAN, FRED. D., M.R.C.S., has been appointed Medical Officer, *pro tem.*, for the Stawell Borough, South and East Wards, Victoria, Australia.

HENSTOCK, J. L., L.R.C.P. Lond., M.R.C.S., has been appointed Assistant Medical Officer at the Belmont-road Infirmary, Liverpool.

JACKSON, MARK, M.D. Irel., M.R.C.S., has been reappointed Medical Officer of Health for the Urban Sanitary District, Barnstaple.

JOHNSTON, WM. H., L.M., L.Ch. Dub., has been appointed Public Vaccinator for Myrtleford, Victoria, Australia.

LAKEMAN, THOS., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer and Public Vaccinator for the Ugborough District of the Totnes Union, vice Harris.

LEWIS, W. A. A., L.R.C.P., F.R.C.S. Edin., has been appointed Certifying Factory Surgeon, vice Blaikie, resigned.

MILBURN, F. L., M.R.C.S., has been appointed Medical Officer for the Fifth District of the Holborn Union.

MORRISON, REGINALD H., M.B., C.M. Edin., has been appointed Certifying Medical Surgeon for the Metropolitan District of Victoria, Australia.

PALEY, WM. E., F.R.C.S., L.R.C.P. Lond., has been reappointed Medical Officer of Health for the Rural Sanitary District of Peterborough.

PARTRIDGE, S., M.D., C.M., L.R.C.P., L.R.C.S. Edin., has been appointed Medical Officer for the Darlaston Sanitary District.

ROLLASON, A., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the Yarrawonga Shire Central Riding, Victoria, Australia.

ROWLANDS, J. D., M.R.C.S., L.S.A., has been appointed Coroner for the Borough of Carmarthen, vice John Hughes, resigned.

SAVORY, HORACE, M.A., M.B., B.C. Cantab., M.R.C.S., L.R.C.P., has been appointed Resident Medical Officer to Haileybury College.

SHIRRES, GEORGE, M.D., D.P.H. Aberd., has been appointed Assistant Medical Inspector of the Public Service, Public Health Department, Victoria, Australia.

SMITH, ALFRED J., M.B., M.Ch., M.A.O. Roy. Univ. Irel., has been appointed Professor in Midwifery to the Catholic University Medical School, Dublin.

TERRY, HENRY G., M.R.C.S., F.R.C.S. Edin., has been appointed Assistant Surgeon to the Royal United Hospital, Bath.

THURSFIELD, T. W., M.D. Aberd., F.R.C.P. Lond., M.R.C.S., has been appointed Medical Visitor of Licensed Houses for the Insane in Warwickshire, vice Tibbits, deceased.

WARD, WALTER F., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the Bawtry District of the Doncaster Union.

WEBB, EDWD. L., M.R.C.P. Edin., M.R.C.S., has been appointed a District Public Vaccinator for Westminster, vice Pearce, deceased.

WILSON, A. C. J., L.R.C.P. Edin., M.R.C.S., has been reappointed Medical Officer for the Thurlstone Urban Sanitary District.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement.

ANCOATS HOSPITAL, Manchester.—Junior House Surgeon. Salary £50, with board and lodging.

BIRMINGHAM GENERAL DISPENSARY.—Five Resident Surgeons. Salary £150 per annum (with an allowance of £30 per annum for cab hire), and furnished rooms, fire, lights, and attendance.

BLOOMSBURY DISPENSARY, 22, Bloomsbury-street, London, W.C.—Dispenser. Salary £100 per annum.

BRADFORD INFIRMARY AND DISPENSARY.—Dispensary Surgeon. Salary £100 per annum, with board.

BRIDGNORTH AND SOUTH SHROPSHIRE INFIRMARY.—House Surgeon Salary £80 per annum, rising £10 per annum to £100, with board and lodging in the Infirmary. (Apply to the Hon. Secretary, Oldbury Rectory, Bridgnorth.)

CUMBERLAND INFIRMARY, Carlisle.—Assistant House Surgeon for one year. Salary £40 per annum, with board, lodging, and washing.

DERBYSHIRE ROYAL INFIRMARY.—Resident Assistant House Surgeon for six months. Salary £10 for the first six months. If re-elected, £25 for the second six months. Separate apartments, board, and washing provided.

EAST SUFFOLK AND IPSWICH HOSPITAL.—Assistant House Surgeon. Salary £30 per annum, board, lodgings, and washing allowed.

INGHAM INFIRMARY AND SOUTH SHIELDS AND WESTOE DISPENSARY.—Senior House Surgeon for two years. Salary £60 per annum, rising to £70, with board and residence. (Apply to the Secretary, 74, King-street, South Shields.)

KENSINGTON DISPENSARY.—Resident Medical Officer. Salary £125 per annum, with furnished apartments, coal, gas, and attendance. (Apply to the Honorary Secretary, 7, Stanford-road, Kensington-court, W.)

KING'S COLLEGE, London.—Sambrooke Surgical Registrarship.

LANCASHIRE COUNTY ASYLUM, Rainhill, near Liverpool.—Assistant Medical Officer to act as Pathologist. Salary £200 per annum, with furnished apartments, board, attendance, and washing.

LONDON HOSPITAL, Whitechapel, E.—Physician.

LUNATIC HOSPITAL, The Coppice, Nottingham.—Assistant Medical Officer. Salary £100 a year, with board, apartments, attendance, and washing.

MILLER HOSPITAL AND ROYAL KENT DISPENSARY, Greenwich, S.E.—Junior Resident Medical Officer. Salary £50 per annum, with board, attendance, and washing.

PARISH OF ST. LEONARD, Shoreditch.—Resident Assistant Medical Officer for the Workhouse and Infirmary. Salary £100 per annum, increasing £10 annually to £120 per annum, with rations, furnished apartments, and washing in the Infirmary. (Apply to the Clerk to the Guardians, Clerk's Office, 213, Kingsland-road, N.E.)

SALFORD ROYAL HOSPITAL.—House Surgeon for the Pendleton Branch Dispensary. Salary £80 per annum, with board and apartments.

ST. MARK'S HOSPITAL FOR FISTULA &c., City-road, London, E.C.—House Surgeon for twelve months. Salary £50, with board and residence in the Hospital.

ST. THOMAS'S HOSPITAL MEDICAL SCHOOL, S.W.—Demonstrator of Physiology. Salary £100.

TUNBRIDGE WELLS GENERAL HOSPITAL.—Resident House Surgeon. Salary £100 per annum, with board, furnished apartments in the Hospital, gas, firing, and attendance.

WOLVERHAMPTON EYE INFIRMARY.—House Surgeon for twelve months. Rooms, with board and washing, provided; also honorarium of £25 at the expiration of the year.

Births, Marriages, and Deaths.

BIRTHS.

CORDEUX.—On June 25th, at Christ Church-road, Doncaster, the wife of Robert Henry Cordeux, B.A., M.B., B.Ch., of a daughter.

COATES.—On June 24th, at Brechin-place, the wife of George Coates, M.D., of a son (Walter George).

DAVIS.—On June 24th, at Beachcroft, Clevedon, the wife of Theodore Davis, M.D. Lond., F.R.C.S. Eng., of a son.

SCOTT.—On June 21st, at German-place, Brighton, the wife of Alfred Scott, M.R.C.S., of a son.

TUNNICLIFFE.—On June 22nd, at Whetstone, London, N., the wife of Edwin T. M. Tunnicliffe, of a daughter.

MARRIAGES.

BLACKLEE—CONSTABLE.—On June 27th, at St. Giles's, Camberwell, Henry John Blacklee, M.B. Lond., to AMY Maria, eldest daughter of Wm. E. Constable, of Dulwich.

BROWN—ALLOTT.—On June 11th, at the Parish Church, Hoyland, by the Rev. H. T. Sale, M.A., Vicar, and the Rev. G. H. Stanton, B.A., John Henry Brown, M.D., of Barngreave-road, Sheffield, to Ida Leach, daughter of the late James R. L. Allott, M.R.C.S., L.S.A., Hoyland Nether.

CORCORAN—BATTISHILL.—On June 17th, at the Church of the Sacred Heart, Exeter, Surgeon Edmund Corcoran, Royal Navy, third son of the late L. W. Corcoran, co. Wexford, Ireland, to Alice Rose Battishill, eldest daughter of W. J. Battishill, Esq., of St. Loges, Exeter.

MURDOCH—HUNTER.—On June 24th, at the Windsor Hotel, Glasgow, by the Rev. Thomas Dobbie, of Lansdowne U.P. Church, William Murdoch, M.D., Annan, Dumfriesshire, to Mary McKinlay, youngest daughter of the late Robert Hunter, Timber Merchant, Glasgow.

POWDRELL—BOOTH.—On June 30th, at St. Michael and All Angels', Walthamstow, John Powdrell, M.R.C.S., of Euston-road, London, to Elizabeth Turner, eldest daughter of the late J. G. Booth, M.R.C.S., L.R.C.P. Lond., of Padiham, Lancashire.

TODD—MARRIOTT.—On June 23rd, at St. Margaret's, Bowden, Cheshire, Henry Maxwell Ross Todd, L.K.Q.C.P., L.R.C.S.I., of Warlingham, Surrey, youngest son of the late Robert Ross Todd, Clerk of the Crown, county Down, to Mabel Grace, only daughter of the late Francis Marriott, of Bowdon, Cheshire, and Hayfield, Derbyshire.

DEATHS.

BROADBENT.—On June 22nd, at Bamburgh, Northumberland, Lewis G. Broadbent, M.D. Aberd., M.R.C.S., aged 67.

CRAWFORD.—On June 29th, at Wilbury-road, Brighton, Mervyn Archdall Nott Crawford, M.A., M.D. Camb., F.R.C.P. Lond., in his 85th year.

MACKRELL.—On July 1st, at Crouch, after ten days' illness from influenza, followed by pneumonia, Alfred Sextus Mackrell, of 2, Manchester-square, W., and Crouch, Kent, M.R.C.S. Lond., L.R.C.P. Edin., aged 42.

MOORE.—On June 24th, at Oakfield Lodge, East Cowes, Isle of Wight, Ralph Moore, M.D. Dub., formerly of Calcutta, in his 82nd year.

SANDELL.—On June 26th, at Halford Villa, New Southgate, Henry William Sandell, M.R.C.S. and L.S.A., aged 82 years.

SHEPPARD.—On June 30th, at 13, Welbeck-street, Cavendish-square, Charles Edward Sheppard, M.D., B.S., F.R.C.S., aged 35 years.

WOOLLEY.—On June 25th, at Heanor, Derbyshire, Thomas S. Woolley, M.R.C.S., aged 53.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, July 2nd, 1891.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Maximum Temp. Shade.	Min. Temp	Rainfall.	Remarks at 8.30 A.M.
June 26	29·85	S.W.	67	61	122	78	59	..	Bright
,, 27	29·90	S.W.	65	59	126	75	59	..	Cloudy
,, 28	30·03	S.W.	66	59	120	80	59	..	Cloudy
,, 29	29·79	S.W.	65	63	117	73	62	..	Overcast
,, 30	29·81	S.W.	67	60	121	74	60	..	Cloudy
July 1	29·79	S.W.	62	60	101	72	60	·06	Raining
,, 2	29·92	S.W.	63	56	106	70	54	·46	Cloudy

Medical Diary for the ensuing Week.

Monday, July 6.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M., and on Tuesday Wednesday, Friday, and Saturday at the same hour.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations daily at 10 A.M.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.

CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and each day in the week at the same hour.

UNIVERSITY COLLEGE HOSPITAL.—Ear and Throat Department, 9 A.M.; Thursday, 9 A.M.

ST. PETER'S HOSPITAL FOR STONE.—4 P.M. Mr. Reginald Harrison: Recurring Stones, their Treatment and Prevention.

Tuesday, July 7.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.; Fridays and Saturdays at the same hour.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic operations, 4 P.M.; Friday, 2 P.M.

ST. MARK'S HOSPITAL.—Operations, 2 P.M.

CANCER HOSPITAL, BROMPTON.—Operations, 2 P.M.; Saturday, 2 P.M.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electro-therapeutics, same day, 2 P.M.

SOCIETY FOR THE STUDY OF INEBRIETY (Rooms of the Medical Society of London, 11, Chandos-street, Cavendish-square, W.).—4 P.M. Chevalier Max de Proskowetz: Ruthenian Inebriety, with the Story of the Cure and after-career of an Inebriate in North-Eastern Austria.

Wednesday, July 8.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1 P.M. Operations by the Obstetric Physicians on Thursdays at 2 P.M.

CHARING-CROSS HOSPITAL.—Operations, 2 P.M., and on Thursday and Friday at the same hour.

ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.

LONDON HOSPITAL.—Operations, 2 P.M. Thursday & Saturday, same hour.

ST. PETER'S HOSPITAL, COVENT-GARDEN.—Operations, 2 P.M.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.

GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 1.30 P.M.; Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.

CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9.30 A.M.; Surgical Visits on Wednesday and Saturday at 9.15 A.M.

Thursday, July 9.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Surgical Consultations, Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Ear and Throat Department, 9 A.M.

Friday, July 10.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

Saturday, July 11.

MIDDLESEX HOSPITAL.—Operations, 2 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; and Skin Department, 9.15 A.M.

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

We cannot undertake to return MSS. not used.

"INFLUENZA."

A CORRESPONDENT writes, in reference to Dr. Glover Lyon's suggestion (see THE LANCET, June 6th) to term it "centro-neural fever," that what is required is a name which will convey to the mind the leading features of the affection. The name "influenza" has been so much employed in a limited sense to catarrh that he thinks it inappropriate to denote what is indeed a specific febrile affection. Undoubtedly the term "influenza," which originated in Italy in the seventeenth century, is not very appropriate. It arose in the notion of an astral "influence" in the production of the epidemic, but it may be retained now in a somewhat different sense, as implying the existence of some peculiar agent which influences or disposes the organism to various inflammatory affections. We do not know that *la grippe*—the term current in France since 1743, and adopted by medical authors—is at all preferable. Our correspondent, however, would like to see the introduction of some homely Saxon phrase, which, like that of the "sweating sickness," would recall the most striking of the phenomena of the malady. He suggests "misery fever" as being expressive of the marked mental and nervous depression that is so characteristic of the attack, and we do not see any objection to the adoption of that or similar expressive terms for colloquial use. Not that there is any real necessity for such a term, for the present generation are not likely to forget what "influenza" connotes; and even if, happily, when this visitation is over, we are again left free from personal experience of such epidemics, there will be the tradition and the record of the phenomena by which posterity may identify it. A name that has been established for 300 years is not easily set aside. A correspondent makes the suggestion that many people (himself included) who suffered last year have been the victims of abortive non-febrile attacks, characterised by depression, loss of appetite, and particularly loss of taste, which he considers are notable symptoms of the convalescent period. He notes that similar affection of the sense of taste is one of the most marked symptoms of convalescence from African malarial fever; and he thinks that his experience goes to prove that a certain degree of immunity is conferred by one attack of influenza. We note also that in his letter published in our columns last week Dr. Fitzgerald enforces more boldly than we ventured to do in a recent article—the relationship between influenza and epidemic pneumonia.

RABIES IN AUSTRIA.

IT is stated that, in pursuance of the wishes of the Austrian Supreme Sanitary Council, the Minister of the Interior has caused inquiry to be made with regard to the origin and prevalence of hydrophobia in the various provinces of the empire. During the last decade the number of dogs attacked with the disease which came under the observation of the local authorities was from 700 to 800 annually. The average annual number of persons attacked by dogs thus infected was from 250 to 340, showing a total of 3021 cases in the past ten years. The mortality of persons during this period is officially registered at 822. The disease is common to all parts of the country, with the exception of some Alpine districts, where the cases registered are few and far between.

Mr. E. B. Turner's paper has been received.

COMBRETUM RAIMBAULTII (*Kinkéliba*).

PROFESSOR HECKEL communicates to *Nouveaux Remèdes* an account of a new West African drug which has been found invaluable by a French missionary, Père Raimbault, in cases of bilious fever accompanied by hæmaturia. The plant is a small tree called by the natives *Kinkéliba*, *Sekhaou*, or *Khassaou*. A decoction of the leaves is used by them in fever with vomiting and jaundice, in severe colic, and in vomiting when not dependent on fever. The fruit, mixed with oil, is also used as an external application for sores, whether syphilitic or otherwise. Père Raimbault has had several opportunities of proving the efficiency of the decoction when he and other members of his party have had attacks of bilious fever, with or without hæmaturia, in cases where quinine was useless. Drs. Vigné and Michel, also of the French navy, have employed the drug with good results. According to Professor Heckel the decoction contains a large quantity of tannin, and also of nitrate of potash, but he has not been able to find any special chemical principle which would account for the specific action it seems to possess. He thinks, however, that the attention of medical men practising in the tropics should be directed to it, and he throws out a hint that its extreme richness in tannin should make it a valuable article of commerce.

THE GRADUATION OF URINOMETERS.

To the Editors of THE LANCET.

SIRS,—Having lately had occasion to procure a new urinometer, I was surprised to find on applying to three of the best-known makers that I could not obtain an instrument properly graduated. It is, I believe, an established fact that the degrees marked on the scale of a urinometer should, for obvious reasons, diminish in size from above downwards. In every specimen which I was shown the degrees were all the same size throughout the scale. I thought it well to call attention to this fact, as the badly graduated urinometers now evidently commonly supplied might give rise to very erroneous conclusions, an error of eight or nine degrees being quite possible.

I am, Sirs, yours truly,

June, 1891. W. HENRY KESTEVEN.

"UNQUALIFIED PRACTICE IN LEICESTER ILLUSTRATED BY INQUESTS."

WE have received a letter from Dr. Alfred Grandison, of Leicester, in which that gentleman says:—"My attention having been called to an annotation in THE LANCET of June 27th, *re* 'Unqualified Practice in Leicester illustrated by Inquests,' in which my name figures very prominently, I feel I must say a few words in self-defence. Mr. Anderson, the unqualified man in question, was a fellow-student of mine in Steevens's Hospital, Dublin, some twenty-five years ago hence probably my being called into the two inquests, but I most positively aver that never under any circumstances have I in any way bolstered him up as an unqualified assistant. I am quite at one with you in the remarks you make respecting unqualified assistants, but I think it is very hard that after twenty years' practice I should find myself a subject of obloquy to every English-speaking medical man in the habitable globe."—We would point out that our annotation referred to "unqualified practice." We did not in this instance allude to the question of unqualified assistants.

ICHTHYOL IN UTERINE DISEASE.

IN the Maria Vittoria Hospital at Turin, in the clinique of Professor Bergesio, some interesting results of the use of ichthyol in uterine affections have just been obtained by his assistant, Dr. Albertoletti. The cases in which it was employed were those of endometritis (catarrhal and fungous), salpingovaritis, and exudative parametritis and perimetritis. The ichthyol was exhibited both by the mouth and internally, in the manner proposed by Dr. Freund, Professor of Gynæcology at Strasburg. Nothing could be more satisfactory than the results, even in cases which had resisted the most energetic treatment, the total cessation of pain being among the most uniform and the most marked. According to Professor Bergesio, ichthyol in such cases is as easily tolerated as its efficacy is undoubted, insomuch that he is convinced it must supersede all other remedial agents hitherto employed in diseases of the kind. Other physicians of the Subalpine school confirm these positions, stating, moreover, that they have for some years obtained the best results from ichthyol in cutaneous affections, particularly those due to syphilis.

SAWTELL FUND.

THE Treasurers desire to acknowledge, with many thanks, the following subscriptions towards the above fund, which have been received since the last list was made out:—Mr. C. Barnett, £1 1s.; Dr. Sansom, £2 2s.; Dr. W. E. Stevenson, £2 2s.; Mr. H. F. Baker, £1 1s.; Dr. C. C. Blades, £1 1s.; Dr. L. Gilchrist Thompson, £1.

COMMUNICATIONS not noticed in our present number will receive attention in our next.

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